

GENERAL LIBRARY

SEP 19 1918

UNIV. OF MICH.

Engineering
Library

THE

ARCHITECTURAL FORUM

FOR QUARTER CENTURY THE BRICKBUILDER

OFFICE ADMINISTRATION

Articles by the Heads of Four
Representative Architects' Offices

RECREATION BUILDINGS IN THE CANTONMENTS

THE NEW BUILDING OF THE BROOKLYN TRUST COMPANY

York & Sawyer, Architects

TWO SOUTHERN COUNTRY HOUSES

Hentz, Reid & Adler, Architects

A GOTHIC DETAIL DRAWING

From the Office of Bertram Grosvenor Goodhue

AUGUST 1918



PUBLISHED *by* ROGERS AND MANSON COMPANY
BOSTON AND NEW YORK AND DEVOTED TO THE
ART SCIENCE AND BUSINESS OF BUILDING

**ST. LOUIS
TERRA COTTA CO.**

Manufacturers of

Architectural
AND
Ornamental

TERRA COTTA

IN ALL COLORS

We would like to place in your
office samples of

"DORIC"

AND

"GOTHIC"

STIPPLED FACE BRICK

This new and beautiful texture is
fully considered in our brochure,
THE ART OF STIPPLING, a
copy of which awaits your request.

WESTERN BRICK COMPANY
DANVILLE ILLINOIS

PFOTENHAUER-NESBIT CO.
ST. JAMES BUILDING, BROADWAY, Cor. 26th ST.
NEW YORK

**IMPERVIOUS
FRONT BRICK**

ROUGH TEXTURE
SMOOTH FACE

IN RED, BUFF, GRAY, MOTTLED,
WHITE, ETC.

Enameled Brick, Fire Brick, Roofing
Tiles, Paving Clinkers, Etc.

Genuine "KITTANING" Brick
Genuine "HARVARD" Brick
Genuine "GREENDALE" Rugs
Genuine "Fallston Iron Spot" Brick
Genuine "Fallston Weave Texture" Brick

Established 1886

Henry Maurer & Son

Manufacturers of

HOLLOW TILE

Fireproofing Materials

OF EVERY DESCRIPTION

Flat and Segment Arches
Partitions, Furring, Etc.

Hollow Wall Blocks for Buildings

GENERAL OFFICE

420 East 23d Street - New York

Philadelphia Office, Penna Building

Works Maurer, New Jersey

THE ARCHITECTURAL FORUM

VOLUME XXIX

NUMBER 2

CONTENTS for AUGUST 1918

PLATE ILLUSTRATIONS

	Architect	Plate
BROOKLYN TRUST COMPANY BUILDING BROOKLYN, N. Y.	York & Sawyer	17-24
HOUSE, FULLER E. CALLAWAY, ESQ. LA GRANGE, GA.	Hentz, Reid & Adler	25-28
HOUSE, BENJAMIN Z. PHILLIPS, ESQ. ATLANTA, GA.	Hentz, Reid & Adler	29, 30
TENNIS COURT BUILDING OF F. L. AMES, ESQ., NORTH EASTON, MASS. Charles M. Baker and Stanley B. Parker		31, 32

LETTERPRESS

	Author	Page
VIEW FROM APPROACH THROUGH GARDEN, HOUSE OF FULLER E. CALLAWAY, ESQ., LA GRANGE, GA. <i>Frontispiece</i>		
THE EDITORS' FORUM.		15
OFFICE ADMINISTRATION A Group of Papers by the Managers of Four Representa- tive Architects' Offices.		27
NOTES ON THE GOVERNMENT'S INDUSTRIAL HOUS- ING PROGRAM.		40
RECREATION BUILDINGS FOR OFFICERS AND MEN AT THE NATIONAL ARMY CANTONMENTS. <i>Illustrations from Plans and Photographs</i>		41
MODERN GOTHIC ARCHITECTURAL DETAILS Plate VII. Doorway of Church of St. Vincent Ferrer, Lexington Avenue, New York City J. P. Wilson and E. T. Jago		Opp. 48
BRICK USED AS A MEANS OF INTERIOR DECORATION. The City house of Edward H. Noyes, Esq., Boston, Mass., H. B. Russell, Architect		49
SWIMMING POOL AND BATHHOUSE AT MANHASSET, LONG ISLAND. Charles A. Platt, Architect		53
EDITORIAL COMMENT AND BOOK NOTES.		54

Published Monthly by
ROGERS AND MANSON COMPANY
85 Water Street, Boston, Mass.

Advertising Department, 42 West 39th Street, New York

Yearly Subscription, payable in advance, U.S.A., Insular Possessions and Cuba \$5.00
Canada \$5.50 Foreign Countries in the Postal Union 6.00
Single Copies 50 cents All Copies Mailed Flat

Trade Supplied by American News Company and its Branches. Entered as
Second Class Matter, March 12, 1892, at the Post Office at Boston, Mass.
Copyright, 1918, by Rogers and Manson Company



VIEW OF HOUSE FROM APPROACH THROUGH THE GARDEN

HOUSE OF FULLER E. CALLAWAY, ESQ., LA GRANGE, GA.

HENTZ, REID & ADLER, ARCHITECTS

See plates 25-28

THE ARCHITECTURAL FORUM

FOR QUARTER CENTURY THE BRICKBUILDER

VOLUME XXIX

AUGUST 1918

NUMBER 2

Office Administration

A GROUP OF PAPERS BY THE MANAGERS OF FOUR
REPRESENTATIVE ARCHITECTS' OFFICES

THE complex duties carried on within an architect's office today require an organization of no mean order; it need not necessarily be large, nor need there be elaborate systems requiring a number of clerks for their operation. There is, however, a demand for a well balanced scheme of administration that will insure to the client, contractor and architect the proper adjustment of their several interests. In the following papers which have been written by men experienced in the organization and administration of important offices handling

varied types of work, the leading pitfalls are clearly shown and methods for their avoidance suggested. Some points of office routine are emphasized in each of the papers, but the varied methods of handling them in the respective offices make the matter more clear because of more than a single opinion. The systems described are in operation in offices distinguished for the architectural excellence of their buildings, proving that efficiency in business relations and office detail is not detrimental to creative art.

— The Editors.

DEVELOPMENT OF ESPRIT DE CORPS

APPLYING modern business methods to the management of an architect's office is a task requiring infinite patience, tact and diplomacy. The man who effects this combination must have a mind where good sense mixes with good humor, imagination mingles with justice, and a strong sense of the value of the ego permeates the whole.

Brains are the tools we work with and the art of selecting and then directing good gray matter into the channel where it may produce its greatest efficiency is a never ending problem.

Whether to have one man for all jobs or one man for each is largely a question of the man, though in an office doing a large business it nearly always works to the best interest of the office if not to the man himself to definitely apportion one job to one man.

Know your man and then work accordingly is a good rule; but the sense of responsibility and the feeling of elation which comes to a man who knows that he and no other is responsible for the success of an enterprise is a mighty good tonic and the business health of an office will never suffer by a liberal dose of such medicine regularly supplied to as many of its force as it may depend upon.

Behind all work which is so co-ordinated that it is efficiently and economically carried on is a well co-ordinated brain. The business head of a large office must not only have such a brain himself but must have the ability to assist in developing this quality in his assistants and to see that each draftsman does all in his power to develop it not only in himself but in others with whom he works. By all

means let a draftsman's work be specialized, but let it be so specialized that an all-round man is developed, and this is not so hard as it sounds. It is not a man's work that develops him but the thought that underlies that work.

It is possible for a draftsman to spend eight hours a day making straight black marks on a sheet of white paper and still develop into an all-round man if he can be made to realize that by so doing he is materially assisting in the success of the work as a whole, but by all means let him have that sense.

The human mind is so constituted that it cannot be limited. It must grow by what it feeds on and if it does not find its food ready made it will search it out, reaching always towards what it can most readily assimilate.

It is most desirable that the draftsman have an acquaintance with the actual work as it is carried on.

Let the work be so arranged that the best in the man is brought out for the best in the work.

The draftsman should be acquainted with the actual work and should be encouraged to use his imagination. An architect's work cannot be systematized like a huge machine shop turning out a hundred or more assembled "flivvers" in one day.

There the dream has been made real by the man at the head and the workman's job is only to perfect the detail. Here the dream is still being dreamed and each man must add his part to make the whole.

Encourage him to form a mental picture of the finished whole, keeping always in mind the responsibility of his share in the success, and let him know as much as possible of the whys and wherefores of the

methods that are being employed to encompass that success and even if sometimes almost military methods must be used to rush through a big enterprise, the draftsman will respond readily if he once understands that the man ahead is acting as a general and not as a slave driver. The human element is, after all, behind all and above all. Self-preservation is nature's first law and best law, and no man can or should be expected to do his best work unless he is doing it for himself, but there are many ways in which he can benefit himself without being selfish.

Get some of the larger meaning of life into your office. Let your man know that he is helping himself every time he helps some one else and that when he is thinking of himself alone, he is defeating his own aims automatically by holding back the good that must come to all if all work together for the best. Thinking is the hardest part in the work and teaching some one else to think is harder than that. In nearly all human beings the emotions are stronger than the reasoning powers; therefore it is natural for us to emote rather than think. It is only when we have learned to translate our emotions into thoughts and our thoughts into actions that we can hope to succeed in any line of endeavor. So simple it is to rely upon our five senses to guide us that most of us only feel our way through life rather than consciously direct it. Because some one else has made a path towards a certain goal we follow along like sheep in this path, jostling one another uncomfortably, trampling upon the weaker ones and being held back ourselves by the stronger; whining all the time at the injustice of it and complaining that life is hard.

It is almost as simple to try another method, but how few of us do it.

Why not stop and say to oneself, "I have a brain as well as five senses; my emotions are stronger than my brain power because I have used them more. I have used them more because they were given to me already developed at my birth and it was necessary for me to develop my brain power myself; but now I know that brain power is the driving force of the world; and that my emotions are only tools given me to use in developing myself. I am the master, not they, and if I would take my place in the world and forge forward to the ultimate good I must use my conscious thought; and my conscious thought tells me that I can never rest secure on the height while there are those below me who envy and hate me because I have trampled them in the mire to attain the heights myself. At any time they may free themselves and scrambling up beside me may kick me down, therefore that I may be secure I must carve a new path and a broader path crowding none, and helping all that I may, so that when I reach my goal others may rejoice to see me there and feel not hatred of me, nor envy of my success, but only kindness and a new impetus to succeed for themselves." With this

thought as a foundation the structure of success is well begun. The man who has attained the point where he can think this thought out for himself, not merely repeat it parrot-wise, nor quote it as his own because he had read it, but think it because he has developed his brain cells to the point where the thought comes of itself, can succeed in anything he undertakes. In other words, this thought is the basic material of success. It is as solid a substance as stone and as free. Let a man once learn how to use it, and he may choose his own tools to fashion any structure that he will. Just as a mason uses stone and brick and mortar to build a thousand buildings all somewhat different, but all composed of the same material, so must the successful builder use this thought. Therefore, to get back to office management, if the man at the head of the office knows how to use this thought himself, and he must to some degree or he would not be the office head, then it is his task to impart this thought to those with whom he works, and the degree of skill with which he is able to impart it marks for them both their degrees of success.

DETAILS OF DRAFTING SUPERVISION

It is a usual custom to charge the time of draftsmen against the work upon which they are engaged. This is effected by a monthly card which is delivered to the draftsmen the first of the month, on which they are required to keep an account of actual time spent upon the different operations. This is done with the idea of systematizing the cost of the buildings, of course, but it should not be dwelt upon so rigidly as to restrict or stifle original thought upon the part of the draftsman. The underlying idea being that while it is well, and perhaps essential, to direct the creative force into a systematically thought out course of action to produce the desired result with the least amount of friction and waste, it is even more desirable to allow the brain of the worker that elasticity and sense of freedom which will permit and encourage the worker to produce the best work of which he is capable.

Rightly used these time cards will serve as a spur rather than a check upon a draftsman's work.

In distributing drafting-room supplies the same general idea may be used. The draftsman is given to understand that while the value of the supplies is justly estimated, and a certain amount of control is used in their distribution, still the main idea is that the work must be of the best quality and that as the draftsman is working with and not merely for his general he himself must be accountable for their use in the proper way, just as he is for the best use of his time.

It should never be the purpose of an office to curtail the number of necessary working drawings; though their overelaboration must be distinctly discouraged.

Time spent in elaborating details of ornamenta-

tion is time misused, and the draftsman should be urged from the very first to consider the workableness of the drawing rather than its presentation. An endeavor should also be made to utilize the special knowledge of the different artisans, such as modelers, carvers, mill men, etc., in a practical way to develop a better understanding as to the actual requirements in the making of drawings and details. The modeling and carving of stone, marble and granite work can safely be assigned to a single concern and full size details of ornament made only in an indicative way, the model being developed in the actual clay under the constant direction of the office, but the artisan encouraged to use his imagination in producing the final result.

In a well organized office the working hours per day of the draftsman are limited to the usual eight hours with the idea of allowing the whole machinery of the office to run with as little friction as possible. Overtime work is discouraged and resorted to only in extreme cases.

The usual working hours are adhered to as strictly as possible not alone because of the value of time but because of the knowledge of the psychological value of habit upon the working brain. The draftsman is reminded, if he seems in danger of forming slovenly habits of unpunctuality or listlessness, that he is cheating not his employer alone but himself in allowing his brain to fall below the high standard of which it is capable.

Full allowance is made for the fact that in overtime work the draftsman is forcing himself to greater effort and this is paid for in proportion, and the fact that the draftsman is benefiting himself by developing a larger capability to meet emergencies is also recognized and noted.

By keeping in mind the law of compensation and by impressing upon the mind of his workers that a man always receives just as much as he gives, no more and no less, a great many problems may be solved by the business head with less worry and waste of effort than is usually given to them.

For this reason it should be a strict policy in an office that all employees should show due consideration at all times to contractors and subcontractors and their representatives. This creates an *esprit de corps* which is very evident in the final results and it is only by such an attitude that the best work of the contractors can be obtained. This attitude should be more generally adopted for that reason.

The relation between the specification writer and draftsmen employed upon working drawings is very intimate, the generally accepted idea being that the working drawings should indicate only such information as cannot be expressed in the specifications, therefore, the specification writer must continually be in touch with the development of the drawings.

The proper and equitable adjustment of the value

of changes made during the construction of the building is a complex proposition. The adoption of unit prices fixing the cost of items added or omitted is not a practical solution of the problem. This matter will hardly be solved by any definite rule except when any contract is backed by the good faith of the contractual parties and also when the system of competitive bidding will have been placed on a better and more economical basis.

RELATIONS WITH CLIENTS

Clients and all others who have to do with building projects will have confidence in the practice of architecture only when the architect himself demands confidence and is able to inspire it. Only by keeping himself up to his best at all times and by giving his best to his clients can the architect inspire that confidence in himself which will be reflected upon those with whom he is associated, and made permanent in them when it is justified. The tendency on the part of many to doubt the architect may be traced to the time when he was classified definitely with the artist as a member of the higher arts and as something apart from the material builder. It is the common tendency to fear that of which we are ignorant and to disparage that which we fear. Superior knowledge must always stand the test of criticism and censure until it justifies itself by producing superior results. It may be that this general attitude of mind has reflected itself upon the architect, and that he himself has unconsciously fostered it by believing that he is something apart and more important than the usual run of men, instead of accepting his art as an art in which he has somewhat perfected himself by training, and in which he is no arbiter but only the instrument through which beauty and utility may be united and given to the world of men in terms which men may understand.

The architect can do much for art by careful self-analysis and by freeing himself of any false idea of superiority, just as he can do much for his art by making his buildings more simple and understandable and more beautiful because of their utility than because of confusing ornamentation and pretensions.

It is only the strong man who can successfully co-operate, only the one with the mind so trained that he can keep it on the important issue, and away from the personal viewpoint; too often what begins as a co-operation between two men degenerates into a battle of wits to see which can win his point most craftily. When a man is struggling to gain something for himself he is automatically strangling his ability to produce. It is only when he forgets himself and what he hopes to gain that he can create the worth-while thing, which is the only thing that will benefit him in the end.

Yet in co-operating with specialists who are employed on a given piece of work it is well to remem-

ber that co-operation means dealing on the 50-50 basis, that you are both taking as well as giving. When a man allows himself to give more than he receives he is robbing the other person just as much as if he were stealing from him, only in a more subtle and dangerous way. He is taking away the man's confidence and belief in himself and making a weakening of him. When he allows the other man to give him more than his share he is robbing himself of that sense of responsibility which a man must have to keep his interest in his work up to the point that produces the maximum result as the architect proves himself better able to handle the project.

Education of both the architect and the public is the only solution of this problem, and as we all know that the printed word is one of the greatest aids in education when properly used, it is the duty of the understanding architect to assist in spreading his knowledge by contributing whenever possible to some good magazine and to suggest to the layman that he might gain a fairer insight into such problems by reading the articles contributed, just as the architect himself is gaining a better insight by trying to contribute them.

The notion which some laymen have that architects are lacking in a large measure the ability to handle properly big building projects has as its foundation a hazy ignorance of what the architect's real work consists. To most men of this type the word architect merely means one who spends his time drinking in inspiration from the beauty of the clouds and then making a pretty picture in white lines upon a scrap of blue paper which is given to the builder with instructions "to follow that out."

There is another class of men who knowing something more of the architect's real work cannot quite rid themselves of the idea that the surface beauty of the building means more to the architect than its utility, that he is always more or less inclined to sacrifice real worth for the sake of making the building correspond more nearly to the palace of his fancy. They cannot quite comprehend the fact that the man who is possessed of enough imagination to visualize a beautiful building may also have developed the practical working side of his brain far enough to be able to attend to the carrying out of his project in a satisfactory manner when dealing with brick and stone and mortar. He lays too much stress upon the artistic side of the architect's works, and mentally dubs him "an impractical artist fellow who deals in dreams."

If the modern successful architect could only take the doubting business man into his office and working side by side with him make him understand just how little of the architect's work is really done when his plans are finished and accepted, this prejudice would quickly disappear, to be followed by a real understanding and respect for his profession.

But, knowing that this attitude is in a large measure due to misunderstanding, the architect should not allow himself to become arrogant or cynical but should simply accept the fact that his work is in a large measure educational and that he must demonstrate by results rather than by arguments which will fail to convince unless they have a solid substance of success to uphold them. Prejudices die out as civilization advances, the world is growing upwards as well as outwards. Architectural atrocities that were accepted in America a few years ago would not be permitted today because both the public and the architect have become better educated and more accustomed to seeing and striving for the best.

In the same way the notion that the architect cannot handle a big business project will disappear.

NEED FOR ORGANIZATION

The sermon preached so far clearly illustrates that the architect who undertakes full responsibility for the results, or claims it, does not utilize the best resources available in his office. His work and the results of his imagination would all the more redound to the service of the profession if he co-ordinated the work of his draftsmen, engineers and others, whose work is necessary in all building operations, thereby building up an organization that becomes more capable and efficient as its duties increase.

It is stated that a bank is about the best conducted of all business institutions. It cannot be too strongly emphasized that the business of an architect's office cannot be any too well organized to produce not only the best artistic results but also practical results in the proper and businesslike conduct of the construction of an operation. It is necessary, therefore, to place all business transactions with the contractor, owner and all the different elements that enter into the construction of a building, on a thorough and businesslike basis. To do this requires an infinite amount of thought and the subject itself would produce an interesting field for discussion. These business methods should be applied to produce a record that will as far as possible determine the actual cost to the architect for the production of all drawings, specifications and supervision in every operation.

A record should be kept of the time spent by the draftsmen, by the simple method of monthly cards issued to each upon which he is required to keep the actual time spent upon the different operations. This record is condensed monthly and carried on to the conclusion of the operation. An effective system should also be developed for recording the cost of drafting-room supplies required from month to month. This, however, is from careful observation a difficult problem, especially to distribute properly and keep an accurate record of the proportional cost to the different operations. Even a bank itself with

its so-called ideal business system would find it difficult to devise an adequate method to apportion cost to the different operations. Perhaps the best method of handling cost of supplies would be to establish, as has been done in some of the best business offices, from year to year a percentage overhead charge which varies depending upon the magnitude of the work, the celerity with which it is done, etc.

The largest item of expense in an architect's office is occasioned by the number of drawings required and their elaboration. Where twenty-five or thirty years ago the number of drawings required for the construction of a building was at the minimum, perhaps because the draftsmen of that day had more practical experience and because the builders were men who applied their energies to the actual operation, it is now found that, primarily due to the fact that the function of the architect has widened, considerable detail work has resulted therefrom requiring many completely detailed drawings. The development of schools of technical education, the consequent establishment of a higher plane of draftsmen's skill, the competitive system of awarding contracts, etc., are other changes which are constantly increasing this burden and it must be the aim of the business manager to watch closely this fertile field for the consumption of profits.—R. J.

THREE SYSTEMS OF DRAFTING-ROOM SUPERVISION

ON the wall of our drafting-room there is posted an article entitled, "The Secret of Success," by John Drier. The entire article has been a source of inspiration, and two paragraphs are so pertinent to this present writing that they are quoted.

"The secret of success' is not a secret, nor is it something new. Nor is it something hard to secure. To become more successful, become more efficient. Do the little things better. Regard yourself as a maker and seller of service, and ever bend your thought and your energies toward the improvement of your products."

It will be generally conceded that the time has passed when the successful architect was he who painted or sketched pretty drawings, affected eccentricities of dress or manner, and whose knowledge of such mundane things as concrete construction, steel framing, heating calculations, and a dozen other like matters was of the vaguest.

In these days the profession of architecture should, in my judgment, mean the science of building, and I may justly say, and without apology, a business.

The architect of today must not only know something of design, but he must also have some knowledge of the technical points of every trade entering into the construction of the building, and as he deals with labor and the production of labor or manu-

factured articles, in just so far is he preëminently a business man.

Therefore I would make this paper a plea for better business methods, efficiency if you prefer, in the practice of architecture.

As a producing business, the cost of production is the first thing to be considered, and to this net, or factory cost, must be added the overhead.

It is in the drafting-room, in the long run, that money is made or lost. To put that department on a proper basis, some form of time card is essential. There are a number of such forms available, but after a trial of several, a form to cover six days and a separate series of cards for each job seems to me the best.

The total number of hours spent on any building can be computed by any one in a few moments. Even aside from the opportunity given by this system of checking the relative value of two or more men, some such system is essential when the architect's services are furnished on a cost and honorarium basis.

In our office the time-card system applies not only to the draftsman, but also to the work of specification writing, and has fully proven its value. It does not appear practicable to carry it any further into routine office work.

To the net drafting cost must be added the overhead charge: rent, telephone service, salaries of executives, stenographers, office boys, and postage and supplies. The total of these items will remain fairly constant, the minimum amount being fixed by the size of the organization. A six months' period should determine the ratio between the office overhead and the drafting cost. The advantage of determining this percentage will be seen later.

The method of production has a large bearing on the matter of profit or loss.

When an architectural practice grows to the point where the principal himself cannot personally oversee all the details in the drafting-room, the question of chief or Head Draftsman vs. Squad System or even individual control arises.

The writer favors the former only to the point where the one man is able to handle the work involved in checking and approving drawings, laying out or assigning work to the junior draftsmen, and interviewing both client and contractor. By no means should he be supposed to do any continuous drafting.

With the Squad System, a group of junior draftsmen in charge of a foreman, it is possible and probable that the latter will be able to supervise as above outlined as many as six different operations at the same time, and the architect himself be called upon to pass only upon details of design.

The third system of individual control or a man in charge of each job would tend to build up an expensive organization and lead to much confusion of authority.

To sum up: The system of a single head draftsman in a large office has the advantage of: (a) concentrating in one person all matters of design; (b) presumably all interviews with clients; (c) full and complete control of all junior draftsmen.

Likewise the disadvantages of: (a) a constant state of being pressed for time in designing; (b) a very probable state of dissatisfaction on the part of clients who may call when the head draftsman is out; (c) confusion or delay in the drafting-room when the head draftsman is absent for any length of time.

The Squad System in comparison provides, and I assume, a reasonable proficiency in design on the part of the leader: (a) more rapid execution of drawings, there being less for one man to design; (b) fewer clients to interview, therefore more personal attention to the needs of each; (c) better attention to the work of individual draftsmen.

What are its disadvantages? A diversity in design or even a falling off from a certain standard of excellence. The diversity should be considered an actual gain and the principal could himself by his criticism maintain the standard.

On the principle that efficiency in any business consists in turning out the greatest amount of finished product at the least expenditure of effort necessary, it stands to reason that to make any unnecessary drawings or to put on any drawing more work than needed, is a waste of time. Let the drawing tell what you want to say, and no more.

The estimating drawings should be studied in detail at scale, and when once approved by the owner should not be changed by the architect to introduce some "improvement" usually at an extra cost. The time to settle the design is when making the scale drawings; the details whether to scale or full size become then properly enlarged drawings and not something different, raising questions for argument.

If the office system includes elaborate specification writing, keep the working drawings free from notes as to materials, etc.; if the specifications are usually in skeleton form, give the information on the plans.

There should be the closest kind of co-operation between the specification department and the drafting room, to produce in tangible form the wishes of the client. Here is where misunderstandings often arise. To avoid this condition as much as possible, our office has adopted written conferences with the client.

Four typewritten copies should be made: one copy to be sent the client for comment if any, one to the drafting-room, a third to the specification writer, and the fourth to the business office for record.

I advocate having both the draftsman in charge of the work and the specification writer present at all conferences with the client until the documents are ready for final bids.

After the letting of the contract the specification writer may not be needed except occasionally, but

the draftsman should be present at all subsequent conferences. Reducing all conferences to writing in as brief form as possible is very desirable. The draftsman present has to make notes in any event, and if the rule is followed of sending a copy of the notes taken to the client for comment, much trouble may be avoided.

FINANCIAL MATTERS

The subject of financial matters of the contract opens up for discussion a wide field, which can be only briefly touched on. Of first importance is that of extra orders.

Extra Work. Are there any other two words covering more annoyance to the architect in his professional practice? Surely here, in the financial field if nowhere else, "eternal vigilance is the price of liberty" — from remorse.

As a first preventive, the suggestion is made to include in every contract, when drawn, clauses covering the following conditions: (a) that no claim from the contractor for extra work will be recognized by the architect unless authorized by him in writing before the execution of such work; (b) that under no circumstances is the superintendent permitted to make any changes in the plans or specifications involving additional expense, and requiring the contractor to promptly notify the architect if he considers any such instructions as going beyond the contract; (c) that the contractor shall notify the architect in writing within a given period of time if any detail drawing issued exceeds the contract terms as he understands them.

For convenience it is desirable to have a printed form for use in ordering extra work, same to be issued in duplicate to owner and contractor. If this rule of written orders is rigidly followed, it is the experience of the writer that both owner and contractor appreciate the system, and it has been mentioned favorably on more than one occasion.

Often cases arise where the owner wishes to make a change involving additional expense, but is averse to spending the money. If a contingent fund has been provided, the architect can then draw against it. If the purposes of this contingent fund have been explained to the owner before signing the contract, and if on completion of the work the architect is able to show the owner a refund or credit of the unexpended balance, the average owner is very well pleased.

It is largely a matter of psychology. In a total contract price of, say \$50,000, it is far better to have included, say, \$1000 for a contingent fund, and on completion of the work to credit the owner with \$250, than to have gone to him at intervals for an extra for each of the items totaling the \$750 spent.

The subject of accounting systems has already been touched upon in the matter of draftsman's time. A ledger account will be kept with each client. This

can, of course, be made to show the drafting cost at the end of each month. The relation between the total cost of draftsman's service and the total costs of overheads, represented by rent, stenographer, business manager's salary, bookkeeper, supplies, etc., can only be determined by monthly statements, but it will usually hold closely to a certain ratio. To be accurate in this matter, it seems essential for the practitioner to allow himself a minimum drawing account, and then the net profits, if any, will be net and not something else. This percentage, added to the drafting cost, should show very closely the actual cost at any time of any operation, and the relation of such cost to the proportion of fee due and payable.

The care of office supplies often has a direct effect on the subject of profits. For distribution of drafting-room supplies I advocate having all materials kept in one room, preferably with the general plan files and under the care of a competent person — not a boy, but a young man. I have heard of at least one office where the system was elaborated to include a daily distribution of all supplies to the drafting tables, but it would seem that this would tend to a waste of material. I believe it to be more efficient to depend on direct request from the draftsman.

FILING OF DRAWINGS

This brings up the question of plan room files. More time is spent in looking for lost drawings than any one other thing. The most efficient scheme that I have knowledge of is to keep all plans under the general charge of a person old enough to have a sense of responsibility and, possibly, by some fortunate chance, a good memory. In this scheme all drawings would be divided into three general classes, according to the state of the work on which they apply.

First, active: drawings of buildings in actual course of erection. These might well be kept in drawers in the drafting-room under the immediate charge of the man who is responsible for the particular building, if floor space does not permit them in the general plan room. Second: drawings of buildings which are practically finished, requiring mostly superintendence and checking of accounts with but occasional reference to drawings. Third: drawings of buildings which are entirely finished and the accounts closed.

Full size or large scale details are best preserved when folded to a uniform size and kept in a series of compartments where easily available. After comparing in actual practice the habit of rolling and storing away in tubes working drawings falling into the third class above mentioned with filing them flat, I strongly advocate the latter method. Manufacturers of metal files have produced a vertical filing case which is ideal for the purpose.

CREATING THE SPIRIT OF CO-OPERATION

An *esprit de corps* is certainly a most necessary adjunct to any architect's office — almost indispensable if the margin of profit, always small, is not to be swallowed up in waste. Two quotations occur to mind and, to the writer, have many times been a source of inspiration: "Blessed is the man who has found his work," and, "Get your happiness out of your work, or you will never know what real happiness is."

So highly is this spirit of co-operation valued that in a certain office, I am told, a new addition to the office staff is requested to sign a card that he or she will work in harmony with the others. This seems to be carrying the matter to the extreme. If the newcomer cannot fit into the vacancy successfully, the best thing is to resign gracefully.

How can the proper spirit of co-operation be made to grow, to achieve for the office an enlarged practice and increased profits and also ratio of profits?

First, by each employee being impressed at an early stage of his career, and by a member of the firm if necessary, with the idea that he is a necessary wheel in the machinery, and that if he cannot fit himself into his allotted place, another will be found who can.

Second, by the senior employees convincing the juniors through example that business, during business hours, is more important than anything else. By that is not meant that an employee is only a machine, but that he or she should understand the real reason for one's presence is to turn out the work, or "get it done." When an individual can be thoroughly imbued with these ideas, then he or she will understand the truth of the sayings of Elbert Hubbard already quoted.

Third, by a general understanding among all concerned that the work of one department is equally as important as that of any other department.

Fourth, by avoiding changes. Nothing will so quickly take the "life" out of a draftsman as the necessity of remaking a drawing, because the superior has had a new thought about it. The time to do the criticizing is when the drawing is being developed. In the business office the acme of discouragement is reached when a line of work has been laid out and started only to be held up by a lack of decisions. In the opinion of the writer concentration is the one thing most necessary to a successful handling of a job so that the client may be pleased.

The architect's best advertisement is a pleased client. The average layman does not go into the refinement of detail. He looks to the architect for that, but he does want the building completed, and from his point of view it is a poor excuse to explain away a delay by saying, for example, "The detail drawing was delayed because the model had to be studied," or, "We will have to decide that color

when the building is finished." More money is wasted by delayed decisions or unessential changes in the architects' office than in any other way.

Co-operation with the contractor and his subs, first, last, and all the time, is an absolute essential to rapid progress. The average contractor is pretty decent and it should be assumed, until proven to the contrary, that he intends to fulfil his contract.

For the protection of the client, the letter and the spirit of the contract must be observed. With a view to avoiding misunderstandings, it is advisable to give all orders to the general contractor in writing. That is a rule generally followed in our office, even to the confirming of instructions given by the superintendent at the building. That need not prevent writing direct to a subcontractor, providing a copy is sent the principal.

The draftsman in charge of the work should always be the one, if possible, to have the interview with the contractor or subcontractor, the business manager being called in only if the questions involve matters of contract interpretation or finance; and notes should be taken of the conference for confirmation in writing. I have yet to hear of a case where the contractor did not prefer these arrangements to indefinite discussion with individual draftsmen.

RELATIONS WITH CONSULTANTS

The relations between an architect and his consultants are many and various. When consulting engineers are called in, it should be at an early stage, soon after the preliminary sketches are approved. Usually a brief description of the problem would enable a heating engineer, a sanitary engineer, or any other expert to outline most of the "snags" to be looked out for and to make suitable arrangements to take care of the installation of his work.

Clients should be made to see the advantage of employing experts in those lines which are usually recognized as purely technical. When it can be arranged, the compensation, adjusted on a percentage basis with the approval of the owner, should be paid by the architect and refunded to him under the heading of office expenses.

When the quarter-scale drawings are well blocked out, let the engineers have prints from which to make their own drawings. This will usually prevent interference of structural members with parts of the mechanical equipment without radical changes in the finished drawings of one or the other. When a heating, electrical, or sanitary engineer is employed, the architect should show on his plans only the location of radiators, lights, and plumbing fixtures, for example, requiring his consultant to furnish complete drawings and specifications. It should also be understood that the architect's superintendence will be confined to seeing that the installation does not interfere with constructional or finish work.

If the consultant is permitted to furnish full services instead of partial in his particular line, his interest in the work will be increased and then the reputation of both consultant and architect will be enhanced; there will be less likelihood of friction, and with a client who is pleased at the completion of the contract the architect will get the credit.

ARCHITECTS' FEES

In the matter of compensation the architectural profession is poorly paid; that is, in comparison with the amount of services rendered.

Take, for example, a country residence to cost, when completed, \$15,000, exclusive of landscape work.

At 10 per cent the architect's fee is,	\$1,500.00
The actual cost to the architect will not be far from the following:	
(a) Preliminary studies and time in consultation with client	\$100.00
(b) Finishing the studies and preparing preliminary specifications	50.00
(c) Making working drawings and complete specifications	200.00
	350.00
Leaving an estimated balance of	\$1,150.00

This must cover all detailing, superintending, and all overheads and profits. When it is realized that it takes from eight to ten months to complete the building, and that the cost of detailing alone is a large item, it will be seen that the margin of profit is small.

Recently a new system of charges has been evolved. Under this the client pays the net drafting cost, plus the overhead charges, and in addition an honorarium fee equal to an agreed percentage of the cost of the work as billed by the contractor. This obviously is an advantageous system for the architect, in that the honorarium represents clear profit for his professional services. On the other hand, the client by leaving matters of design in the hands of the architect can keep the drafting cost down to the minimum.

If the average draftsman could realize the proportion of expense eaten up in making drawings, there would be less talk of overtime work. It is the general custom, at least in New York City, to pay draftsmen on a weekly salary basis, for a stated number of hours per week. For the sake of the greatest efficiency and co-operation, the system of holding all members of an office force to regular hours appears better than simply requiring the total minimum hours per week from the individual. If, however, a man cannot be trusted to put in the full allowance of time without a time-clock system, his place is in a factory and not an office.

As to the question of overtime work, a fair proposition seems to be: when the condition of the work warrants it, a draftsman may at his own volition work an excess number of hours and be paid therefor at his regular hourly rate. When the overtime work is performed at request of the employer, the rate of time and a half should be sufficient compensation.

THE CLIENT

It has been an unfortunate fact that many laymen believe it is inherently impossible for an architect to handle successfully large building projects. I believe, however, that state of mind is already changing and we of the profession should do our best to bring about a complete change. A considerable start has already been made in the town planning field, where not only the large corporation but even the maligned real estate operator is being won over. The following facts are being established when this class of work is placed in the hands of a competent architect:

(a) The proper sequence of work from start to finish can be better systematized.

(b) Individual buildings can be designed to produce a pleasing variation in detail and color scheme at no great increase in initial cost, and such houses will rent more readily and at higher rates than if all are absolutely uniform.

(c) The laying out of a piece of property by a specialist will save in the cost of roads, sewers, planting, and other parts of the work more than the expert's fee.

(d) The finished product of the combined efforts of the architect and his associated consultants will constitute a greater asset to the community than a similar number of buildings erected subject to no general restrictions other than those imposed by the local building ordinances.

In the field of private house building for the individual, and particularly for personal occupancy, there really should not be two sides to the question.

I have spoken of the architect making up his mind. An equally important function is to see that the client makes up his mind, and it might as well be done early as late. Recently I was informed of a case in point. The contract for a large country house was awarded and before the first tier beams were set the architect's office in conference with the contractor and the owner had settled on everything covered in the contract, even to the lighting fixtures and the refrigerators. More than that, the contractor was enabled to place his sub-contracts early and so far as humanly possible avoid delays. When you have done that you have gone a long way toward a successful ending.

In the field of designing large commercial structures lies the greatest opportunity to reverse this popular misconception of the architect's relation to his client. These propositions must be approached from the financial side.

What is the maximum sum to be invested, and what is the minimum of rentals that must be obtained to net a reasonable return on the investment? What system is to be followed in the care of the building? What are the best types of mechanical equipment to install and the best varieties of interior finish to employ to reduce the cost of maintenance to a minimum without cheapening the appearance of the build-

ing and reducing it in class, so far as probable tenants are concerned?

The answers to these questions will determine:

First, the approximate size of the building.

Second, the installation of an independent power, light, and heat plant or the use of services of public utilities corporations.

Third, the principle to be followed in the detailed development of drawings and specifications.

Can the architect convince his possible client as to his ability to handle the detailed questions arising out of these general propositions? I believe he can if he is familiar with values and has a knowledge of unit prices and if he can keep from considering details of design at the preliminary conferences.

A FEW "DON'TS"

If awarded a commission for an office building, by all means get the consulting engineers busy just as soon as the plans have been generally approved. Let them be the ones to interview the ubiquitous salesman who wants to have "something new" incorporated in the plans. You rely on them to have their part of the work complete, keep them responsible, check over their specifications and plans with them before your own get beyond the first stages, and avoid duplications or "holes."

In your own plans and specifications avoid using anything which has not been tried out satisfactorily under similar conditions. An architect makes a big mistake in picking out a large realty corporation as "the dog" on which to try experiments. To cite two instances: in an office building a certain sample of stained oak was selected as the color for trim and woodwork, but when varnished the color changed, therefore it was decided to omit the varnish in actual execution. In private house work this might have been all right. In an office building with floors mopped up in a careless manner and windows left open in all kinds of weather, the obvious soon happened. The trim looked dirty and the veneer on the large flush panel doors began to warp. Finally the interior woodwork had to be varnished. Then the janitor's staff knew how to care for it and the superintendent could, if necessary, touch it up. Another instance occurred in a new unit of a group of hospital buildings. The interior plaster was painted in a variety of shades, very effective as a color scheme, but most impracticable from the maintenance viewpoint, because some of the colors did not wear well and were difficult to match in repair work, requiring a much greater variety of painter's supplies to be kept on hand than that particular institution had been accustomed to carrying.

It may be said those criticisms were trivial, but in the eyes of the clients and their representatives they were quite important, and certainly the cause of criticism could have been avoided. It is unfortunately

true that many people feel that an architect is, by the very nature of his profession, unable to look at things in a large, broad-minded way; that he is wrapped up in petty details, and that he is exceedingly well paid for his services.

In this article I have endeavored to show that this viewpoint is incorrect. The very nature of the profession itself calling upon its devotee for the best that he can produce in design; for an intimate knowledge of technical matters relating to building construction; for an understanding of property valuation, and finally for enough knowledge of law to protect his client's interests in the preparation of contracts, must broaden the mind of any man striving for success in this line.

As a concluding argument for all engaged in the architectural profession, these words by John Drier should be a stimulus:

"The world is hungry for quality service. It wants to pay for it. It is paying for all it can get. The market is not crowded. There is a chance for you right now. There is a chance for you right where you are. The time to start is now. Your reward will take care of itself."—A. F. W.

OFFICE ORGANIZATION AND DELEGATION OF RESPONSIBILITY

THE model architect's office should be run on the open door policy. The time when a client was received in a closed lobby and had to make his wants known to the office boy, or through a grated window, is past. The entrance should be accessible, attractive and in charge of one who will courteously treat every one from a client down to a peddler.

The organization of the office naturally falls into two departments—the business office and the drafting-room. The manager should be in touch with both, and their relation to him is shown in the following diagram:



The manager should have charge of the mail, the signing of all letters, interviewing of those who call on business, be in touch with the business office and the drafting-room and, in fact, be the man who in general knows everything and can answer every question, or at least see that the question is properly answered. "Attention of Mr. A." upon a letter addressed to the firm should be resented by the manager of a well-organized office, for it presupposes he is unfamiliar with his work and needs help from the writer. The efficient manager knows instantly to whom letters should be referred.

The business office should be under the direction of

the head stenographer or bookkeeper, who should give the necessary instructions to the door man, boys, telephone operator, bookkeeper and stenographers.

The drafting-room should be in the direct control of a head draftsman, or junior member of the firm. He directs all draftsmen, superintendents, engineers, specification writer and plan clerk.

Each man in the drafting-room should give account on proper cards of the time spent upon each job, or upon the general office work. These cards enable the bookkeeper to charge the cost of each job properly in the ledger, adding the correct amount of overhead expense, including rent, insurance and cost of supplies. The plan clerk has charge of the drafting-room supplies, which are kept under lock. These should be given out freely to the draftsmen as they may need them, upon application to the plan clerk.

There is a distinct gain by the standardization of drawings. Architects would do well to fix upon a standard size for details and for large scale drawings. This, naturally, would be of double elephant size, or such as will go without folding in the chest of drawers available. One-quarter inch scale drawings vary in size, but should always be made, if possible, to go in the drawer without folding.

The specification writer should be familiar with the drawings as they are being made, giving such suggestions as his experience leads him to make. After the rough copy has been made the draftsman responsible for the job should have the privilege of reading, checking and making suggestions.

It seems to the writer that the best result is obtained by having a capable man run each job, with assistance according to the magnitude of the work. This man should be allowed either to superintend the work or make frequent visits to it. A general superintendent with many jobs has never proved a success unless the volume of work is large and his sphere is limited to structural details only.

The relation between the men in the drafting-room and builders should be one of co-operation. The skilful builder is always able from his experience to render great assistance to the draftsmen in methods of construction and selection of materials. Imperative orders should rarely be given, but a free discussion permitted in order to obtain the best result. Some clients expect their architect and many architects endeavor to dictate to the builder how to run his business. It has always seemed to the writer a mistake to do more than act in an advisory capacity, provided, of course, the builder is a capable one. The building should be constructed in conformity to the drawings and specifications and in such a way as to carry out the intent of the architect. The builder should be given free rein as to how to accomplish this result and not be needlessly irritated by the dictation of the architect.

In architecture as in other professions there is a

tendency to specialize; it is found that one man is particularly familiar with hospital work, another with the problems of banking, another with private house work and others with details, figuring, checking drawings, etc. The highest efficiency is obtained when men do the work for which they are specially fitted.

In New York it is the usual practice to require of draftsmen forty hours per week; that is a seven-hour day for five days and five hours on Saturday. A few offices, however, divide up the time in such a way that in certain summer months the full time is put in during five days, and Saturday observed as a holiday. This has proven satisfactory to clients and is pleasing to the office force.

The complications of modern work are such that the architect is often compelled to call in experts, particularly in engineering, heating and lighting. There is always more or less friction between the architect's draftsmen and those of the expert. The many consultations must of necessity take place in the drafting-room, and long discussions waste a great deal of time. As far as possible information obtained from the expert should be placed upon the architect's working drawings and only such details as would needlessly confuse them left for the expert's own drawings.

The best work from an architectural standpoint cannot be turned out of an office in which there is the highest efficiency based on the factory system. It is often necessary in the interests of improvement to throw away drawings upon which weeks and months of time and labor have been expended. This is wasteful, but can never be avoided where work of the highest class is expected. The atmosphere of the drawing-room should be not one of push, but one where time is taken to work out problems, to discuss properly, change and modify as much as necessary to gain the best result.—B. S. F.

A UNIQUE METHOD OF RECORDING DRAFTSMEN'S TIME

THE business success of any office, its ability to do good work economically, must depend in large measure on the spirit of the staff. The atmosphere most helpful is that of a business family where each member shares the duties and benefits in due proportion — without the not unfamiliar family nagging. Perhaps the most frequent occasion for misunderstanding and consequent ill-feeling lies in the questions of "time" and "salaries." A number of bunkers present themselves.

"Keeping time" in any way is sometimes questioned — a few spoonfuls of temperament seem an unavoidable component for a thoroughgoing "architect" in the draftsman stage, but time clocks or records are particularly frowned upon as introducing an evident sign of supervision and restraint, even in

a measure a suggestion of suspicion as contrasted with the very much desired honor system. And since much trouble lies in an administration either too strict or too lax it is important in this matter of time to keep the record in a simple manner, simple at least so far as the staff is concerned, without making it a part of a system of policing.

The first essential is the establishment of regular office hours, avoiding the troubles incident to the men's coming and going at hours of their own choosing. Nine to five or five-fifteen, with lunch hour from one to two, is a good schedule for five days of the week, with Saturdays from nine to one — the whole adjusted to give a forty-hour weekly program, a fair period for work and a time total conveniently dealt with on the salary account.

This time schedule need not be inflexible. Leeway may be given as necessity demands, even as convenience may require, so long as the transaction of business is not unreasonably interfered with. A few minutes of grace where a prompt arrival is difficult may be essential to good spirit — the chance to be at work a bit early or late may gain contentment where the strict rule would lose it. Time lost may be made up by agreement and in the same way time may be gained; that is, stored up, by a few minutes' work before or after regular hours, and all if it will serve to make the world turn more smoothly.

The adjustment of the salary account to the time account may be easily made. The total of time within regular office hours is entered on the time account as "time earned"; additional time, that is, time at work outside regular hours, is noted as "time made up" when it pays a debt due the office, and as "time made up in advance" when the time is earned in anticipation of future use.

In the same way note is made of time lost through absence by choice, by illness, or by other causes. Then when the total time lost through one or more weeks amounts to, say, ten per cent of the week, that is, four hours, the wage equivalent of this lost time may be deducted from the salary. When the total time for the week exceeds forty hours, the excess may be credited as "time made up in advance" which may later be drawn upon for an extension of the regular vacation period or an extra holiday or may be counted to make up for time taken out or lost for any other reason. The time record thus becomes a bank account from which time may be taken or in which it may be deposited for later use; in this way with some offices vacations are often taken piecemeal, a day each week, or otherwise at the convenience of the office, thus interfering but little, if at all, with the conduct of the business.

"Short time" or excused absences may be made up outside of office hours only when so arranged, and the pernicious custom of "overtime" may very often, in fact, almost altogether be avoided by employing

on emergency work those who owe time to the office or who desire to accumulate it for future use. This arrangement has the double advantage of being more agreeable to the staff and less expensive to the office.

SUMMER TIME SCHEDULE

During the summer months, in offices which close for Saturday afternoon, Saturday morning is usually a period of low efficiency; the client probably spends his week-end away from town, the builder often has but half a day at his office or paying off at the job; labor, too, takes a half-holiday, and the architect's staff comes to the office, not actually in bathing suits, but mentally, at least, set for the week-end's pleasure jaunt. Late arrivals explain that errands have to be done, tickets bought or bags packed; early departures catch special trains, and the brief intervening hours are crowded with the little nothings that filter out the production bugs so that the threads of the drafting-room or of the correspondence are but loosely held if picked up at all, and the architect either follows the custom of the Romans or if he must come around spends his day in a futile effort to speed up a lagging output. Or — and this is the solution of this problem — he schedules an extension to the working time of each of the five full working days preceding, making it possible for the staff to complete the full week between Monday morning and Friday night. Those who wish to work through the extra period make their full time, others work only for the usual hours and are paid for a short week or make a full week by calling Saturday morning a part of their vacations. The "bank account" time system absorbs all the vagaries of such a schedule and the output for the "effective time" is improved.

TIME RECORD

In order that these notes may not leave the impression that the time record is a complex affair it may be well to record its real simplicity. The hours of work and the job worked on by each member of the staff are noted daily and later assembled on the payroll sheet once a week. This sheet has in its first column the names of the staff, next the "total hours earned," then columns for the time charged to vacation, to illness, to excused time (that is, time to be made up in the future), to advance time (which is time "in the bank," previously earned, to be drawn on or added to) and, alas, a column for time deducted or docked. It can readily be seen that the total of these columns — extended to a final column at the right — shows time to be paid for, however distributed. This total should always make just the full week of, say, forty hours, except (1) when there is time deducted, in which case the total is less than the full week's time, or (2) when time is "put in the bank," for advance time earned is credited as such, but not included in the total nor paid in the weekly salary.

Making the total come to the full week's time is easily managed by taking advantage of the vacation column, the excused time or the advanced time, and is worth while, as stated at the outset, for the better feeling which it produces. Any office which has not tried this system will find it to repay largely in the spirit which is brought out. It is not a "cure-all," but the desired personal interest and "get together" are largely promoted by the mutual consideration which is induced by this method.

THE PAY-ROLL

With a time schedule definitely established and time totals periodically computed, the next step — and this is one of the most important sedatives, is to make payment at an agreed time for the full regular salary amount and not more or less except when otherwise agreed upon.

"Docking" should be resorted to only for reasons pointed out and clearly understood. Extra time should be paid for as an "extra" only when so requested or agreed. The payment of the full regular wage neither increased nor diminished is the best policy. It goes far, on the one hand, to insure satisfaction, leaving less likelihood of complaint on other scores, and on the other it acts to curb the easily aroused appetite for overtime.

This plan has been described as applied to the weekly payment of salaries, but there is nothing to prevent its adaptation to a system of payments on any other short-time basis. And such frequent payments do not occasion very considerable work if payments are by check instead of by cash. This method obviates the need of making up exact amounts in coin and the trouble incident to pay envelopes and the taking of receipts, while at the same time the salary record is complete on the check stubs.

So much for the exchange of service for funds — the cash drawer and the time sheet. With the approach of the period of open windows and the first signs of building weather there will come discussion of vacations, often a source of misunderstanding.

VACATIONS

In one office there was the usual arrangement permitting two weeks of vacation with salary each year, or a shorter time if the period of employment was less than a year. Each year and each individual brought recurrent problems and finally, to avoid complications because of uncertainty as to when vacations were due or how much vacation with pay would be allowed, and in order generally to systematize a confused situation, the office in question adopted the simple provision that no vacation would be allowed until after six months' connection with the office and also established a limiting date (as at the termination of the fiscal year), up to which vacations earned were calculated. The "vacations

earned" account is now written up for all the staff as of this fixed date, say, May 30; if less than a week's vacation has accrued, that is, if the employment has been for less than six months, the vacation may not be taken during that season except by special arrangement, but the time due is credited and later added to that earned in the following twelve months so that at the end of that period a vacation is allowed for the total time, that is, two weeks plus the time credited on the account the year before. Should the employee leave without having taken the full vacation earned, the amount of salary proportionate to the balance of earned vacation is paid.

The question of how to deal with absences due to illness is naturally a part of this discussion and presents itself in many forms. Some uniform rule is necessary to avoid some degree of complaint and a feeling that all are not treated alike. In some offices in case of illness time out amounting to two weeks is allowed without loss of salary; beyond that, circumstances govern, each case being taken up on its merits. In other offices the entire time lost is paid for. The matter is entirely one for the personal decision of the employer.

PAYING THE PIPER

The time and manner of submitting commission bills to the client has puzzled many a novice. It is well to establish a routine in this and so avoid any occasion for special explanation. A first payment may usually be asked for when the contract drawings and specifications are complete, and if after that the diffident architect allows a matter-of-fact financial statement to accompany each notice to the owner of a payment to be made to the contractor he will automatically reach the end of his billings as the work is completed and the final contract payments made.

And with some such regularity of income established it is the more easy to take care of the inevitable items of expense. Some of the usual charges, such as the telephone, are not subject to discount or economies possible through favorable purchasing. But where the plan is feasible it is well to adopt some businesslike system, as, for instance, to purchase supplies at a price made on the use of a given quantity in a given time, deliveries to be made when ordered and payments at stipulated dates. In some offices it has been found worth while to set a date of payment, say, the fifteenth of the month, for all bills received by a fixed day, such as the fifth. This operates to simplify the situation for both parties and to assure favorable prices through regular payments.

FINANCIAL PERSPECTIVE

This plan of disbursements at fixed dates has another value in that it gives a better basis for easily making the distribution and comparison of office costs — for there should be a cost record. This need

not be refined to the uttermost detail; in fact, one very extensive, and somewhat expensive, experiment in this field, proved that analysis in extreme detail was not alone unprofitable, but did not show a result differing in any large measure from that obtained by consideration only of the more important and significant items. Direct charges can be made of much of the cost — the salaries of draftsmen and superintendents can be apportioned according to the disposition of their time; the cost of telegrams, express charges and messenger service when not collected as disbursements can be definitely placed as cost items; supplies are sometimes of such a nature as to permit their identification as evident parts of a job's cost and the writing of the specifications is easily assessed on the work to which it belongs.

The total of direct charges of this character having been determined for each commission during a given time, the overhead charges, rent, general salaries, miscellaneous supplies and other costs for the same period can be totalled and pro rated among the jobs in hand, and each job's cost is thus identified.

Once determined on a monthly (or some other) basis, this cost is to be compared with other figures which should be more comforting. First, the anticipated total commissions or income to the architect is set down, then the amount of that income so far received, and in the third column the cost of the jobs to date. Such a tabulation may be most valuable. It suggests inquiry into the occasion for one job proving profitable, while another eats more than its share, it prompts the speeding up of collections so that each piece of work on a paying basis may be made to carry itself, it may give occasion for a comfortable relaxation with the knowledge that the funds yet to come are well in excess of demands, or be not less helpful in pointing out that the treasury needs help.

Such a record may be developed much beyond this merely basic outline and may be supplemented by many others but they must not be cumbersome or difficult of upkeep. For instance, an interesting sidelight may be found in the comparison from time to time of the figures obtained by compiling the total salaries of the staff and the total hours paid for, both during a given period, and dividing the time total into the salaries' total. The result gives an index figure in the form of "the rate per man per hour" and a little study of the situation with comparison of successive rates may show the staff top-heavy, with a number of higher-paid members, or weakened by the introduction of too many juniors. Such figures are not conclusive but should be considered merely symptomatic.

Professional work on a business basis is not only possible, but a necessity. Systematic team work, fair play and regular attention go far toward assuring success in spite of the attributes of genius which the architectural guild endures or affects.—S. H. R.

Notes on the Government's Industrial Housing Program

THE activities of the Government in the housing field are rapidly expanding. The original bill of Congress appropriating \$60,000,000 for the Bureau of Industrial Housing and Transportation was no sooner signed by the President than it was perceived by those in touch with the situation that it failed to provide sufficient means for meeting the full demand of laborers' housing. The Bureau recently asked Congress for an additional \$100,000,000 but the appropriation committee of the House has provided for only \$50,000,000 in its urgent deficiency bill, while the estimated cost of the housing developments already agreed upon as necessary, total \$189,295,000 — far in excess of the available funds. The demands for housing are already so great that the Bureau will soon be compelled to approach Congress again for an additional appropriation. The developments upon which actual work has been started represent the expenditure of about \$50,000,000 and the passing of further appropriations will be necessary before the others can be started.

As an aid in facilitating the work of the Government in housing, the United States Housing Corporation has been formed, which will take over in large part the functions previously carried on by the Bureau of Industrial Housing and Transportation. The charter was taken out under the laws of the State of New York and the articles of incorporation provide for the issuance of one thousand shares of stock without par value. The executive officers of the corporation are: Otto M. Eidlitz, president; Joseph D. Leland, vice-president; George C. Box, treasurer; and Burt L. Fenner, secretary. The directors in addition to the men named are: Albert B. Kerr, John W. Alvord, and William E. Shannon. The stock is held on behalf of the Government by the Secretary of Labor, with the exception of one share each held by Mr. Eidlitz and Mr. Box.

Another change in procedure dictated by the experience of the last few months relates to the financial policy of the Government. One of the conditions formerly attendant on a community's housing shortage being relieved, was that funds equaling twenty per cent of the cost of the development should be supplied by local interests. This was in most cases supplied by the industries that the houses were to benefit, but it called forth a protest from organized labor because of the reluctance of workmen to live in houses owned by their employers. To avoid this complication and also delays in construction, the Bureau now proposes that the Government shall own entirely the dwellings it erects, renting them for the period of the war, and leaving their final disposition till after the war.

The plans for the housing of clerical workers in

Washington are moving on apace. Sites have been selected at Union Station Plaza and on one of the Government owned squares between 14th and 15th Streets, south of Pennsylvania Avenue for the erection of dormitories for men and women clerks. They will be constructed of terra cotta blocks with stucco coating similar to the big war offices recently erected on the Mall. While they will be temporary, every means for comfortable living will be provided. In plan they will take the form of several wings, according to the site, each wing to provide for 150 individual rooms supplied with running water. In each group a central dining and recreation hall will be erected. Before December 10,000 additional clerks are expected in Washington. The present dormitory plans will accommodate between 5000 and 6000 and it is hoped that the room registry will be able to find quarters for the remainder.

HOUSING APPOINTMENTS

Since the publication in our previous issue of the list of Government housing developments under way, the following projects have been assigned:

Portsmouth, N. H., Allen & Collens, Boston, architects.

Newport, R. I., Clarke & Howe, Providence, architects; A. A. Shurtleff, Boston, town planner.

Staten Island, N. Y., Delano & Aldrich, New York, architects.

Bethlehem, Pa., (clubhouse) A. W. Leh, South Bethlehem, architect.

Watervliet, N. Y., A. P. Lee, Troy, architect.

Hammond, Ind., J. C. Llewellyn, Chicago, architect.

New Castle, Del., Charles C. May, New York, architect; George F. Pentecost, New York, town planner.

Waterbury, Conn., Murphy & Dana, New York, architects; F. M. Hinchman, New York, town planner.

Elizabeth, N. J., Charles W. Oakley, Elizabeth, architect.

Washington D. C., Navy Yard, Ray & Waggaman, Washington, architects.

Lowell, Mass., James H. Ritchie, Boston, architect.

Lowell, Mass., Henry L. Rourke, Lowell, architect.

Aberdeen, Md., Sill, Buckler & Fenhagen, Baltimore, architects; Stephen Child, Washington, town planner.

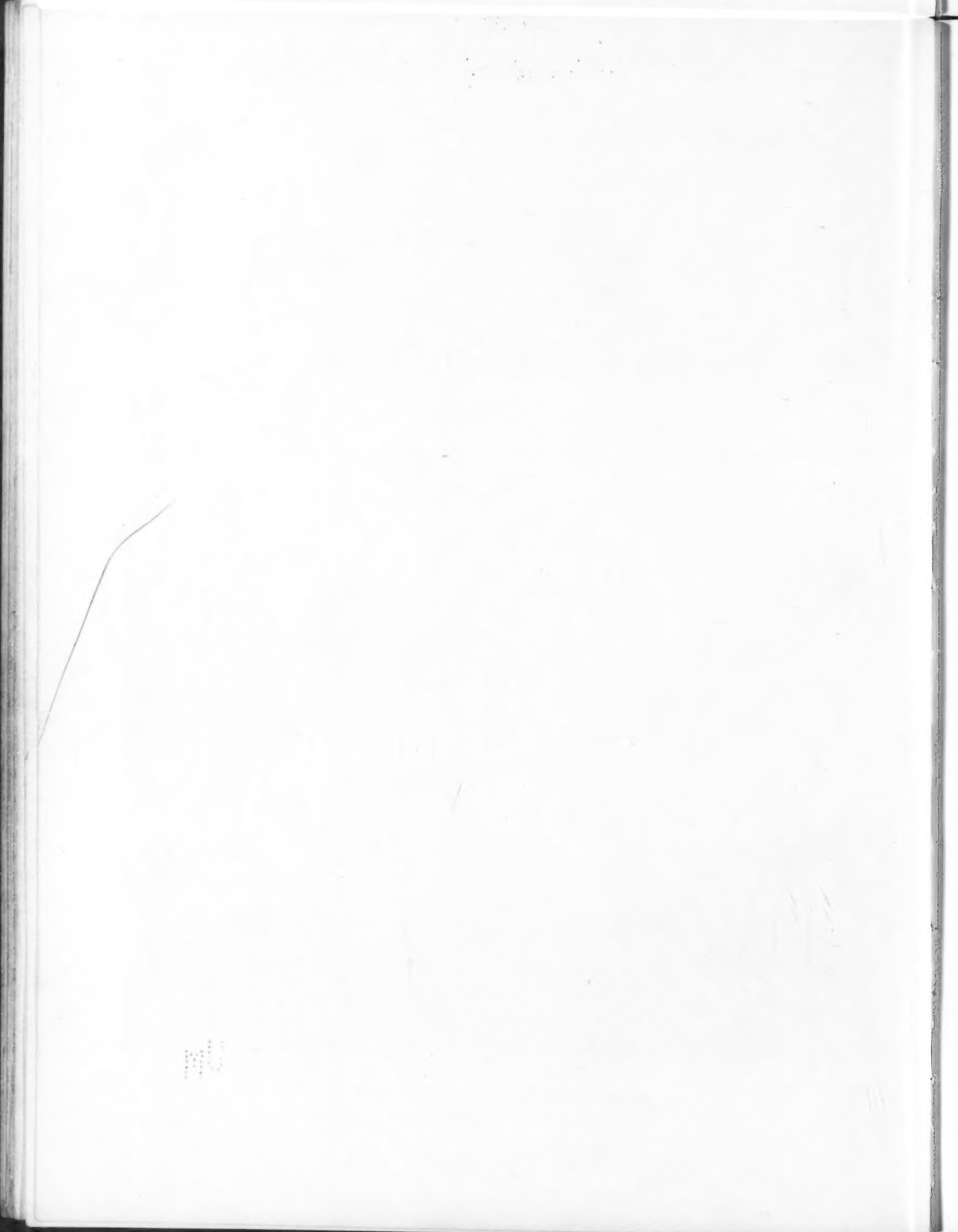
New Brunswick, N. J., Trowbridge & Livingstone, New York, architects.

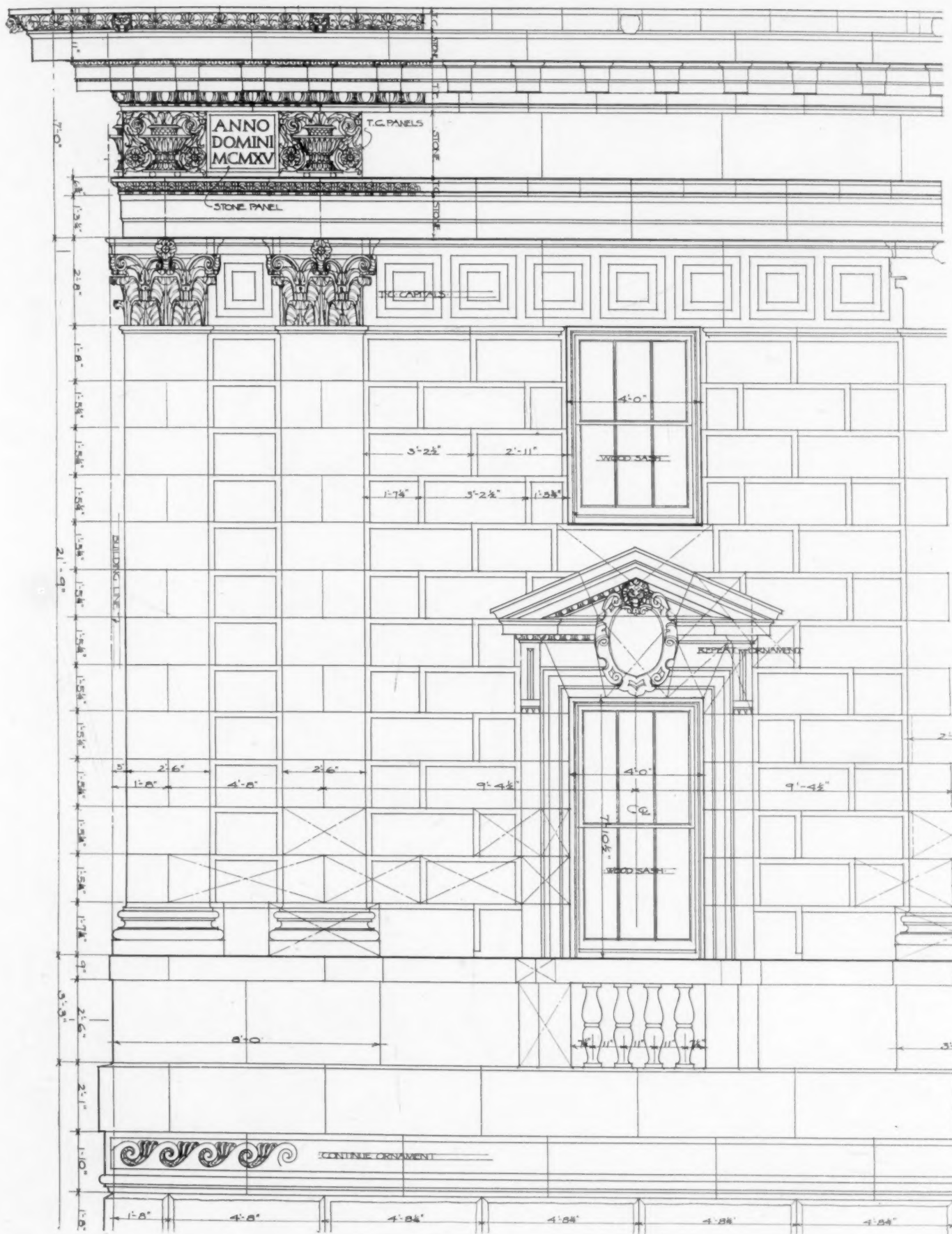
Sheffield, Tuscombia and Florence, Ala., Warren & Knight, Birmingham, architects.

Sharon and Butler, Pa., and Niles and Warren, Ohio, George H. Schwann, Pittsburgh, architect.



✓ MONTAGUE STREET FACADE
BROOKLYN TRUST COMPANY BUILDING, BROOKLYN, N. Y.
YORK & SAWYER, ARCHITECTS



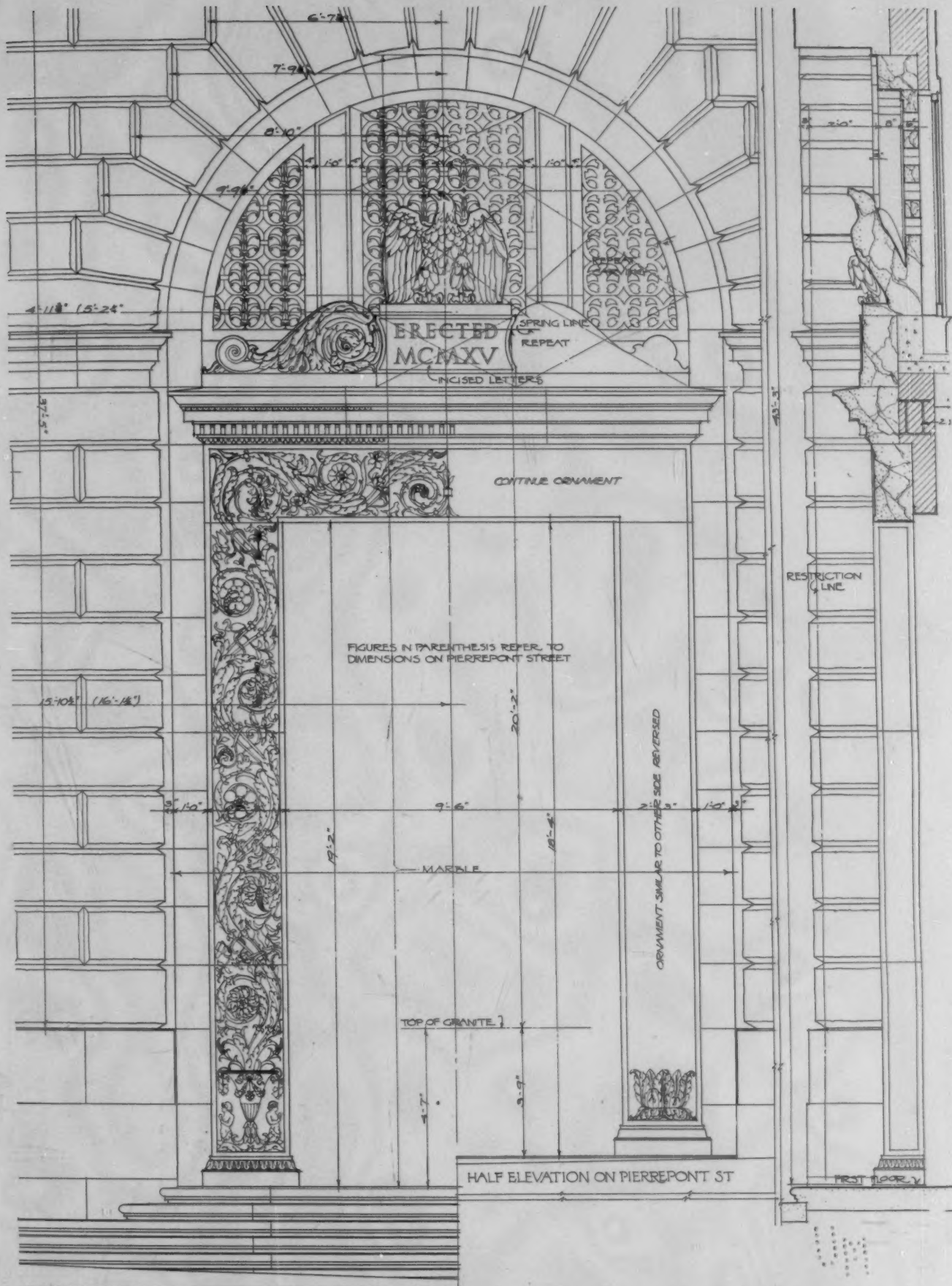


DETAIL OF UPPER STORIES OF CLINTON STREET FACADE
BROOKLYN TRUST COMPANY BUILDING, BROOKLYN, N. Y.
YORK & SAWYER, ARCHITECTS

100



DETAIL OF PIERREPONT STREET ENTRANCE
BROOKLYN TRUST COMPANY BUILDING, BROOKLYN, N. Y.
YORK & SAWYER, ARCHITECTS

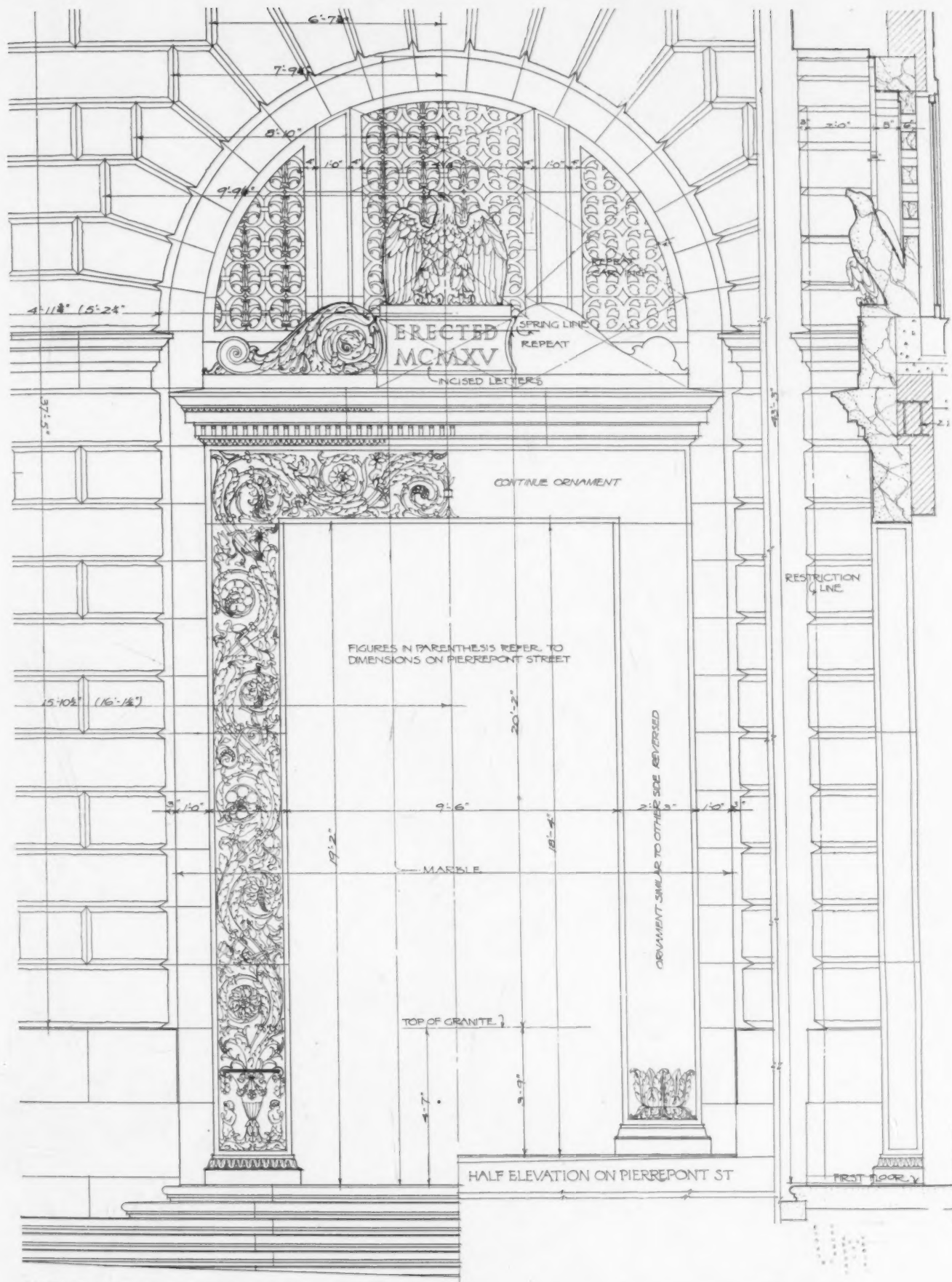


DETAIL OF ENTRANCE DOORWAYS ON PIERREPONT AND MONTAGUE STREETS

BROOKLYN TRUST COMPANY BUILDING, BROOKLYN, N. Y.

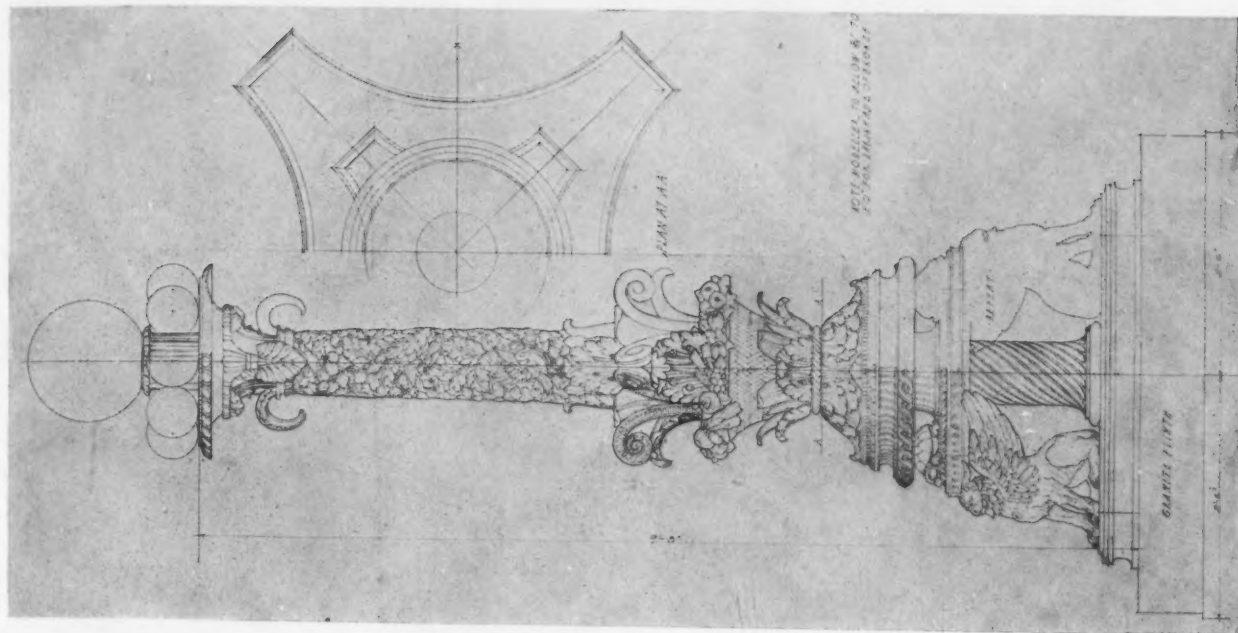
YORK & SAWYER, ARCHITECTS

100
100
100
100



DETAIL OF ENTRANCE DOORWAYS ON PIERREPONT AND MONTAGUE STREETS
 BROOKLYN TRUST COMPANY BUILDING, BROOKLYN, N. Y.
 YORK & SAWYER, ARCHITECTS

100



DETAIL OF LAMP STANDARD

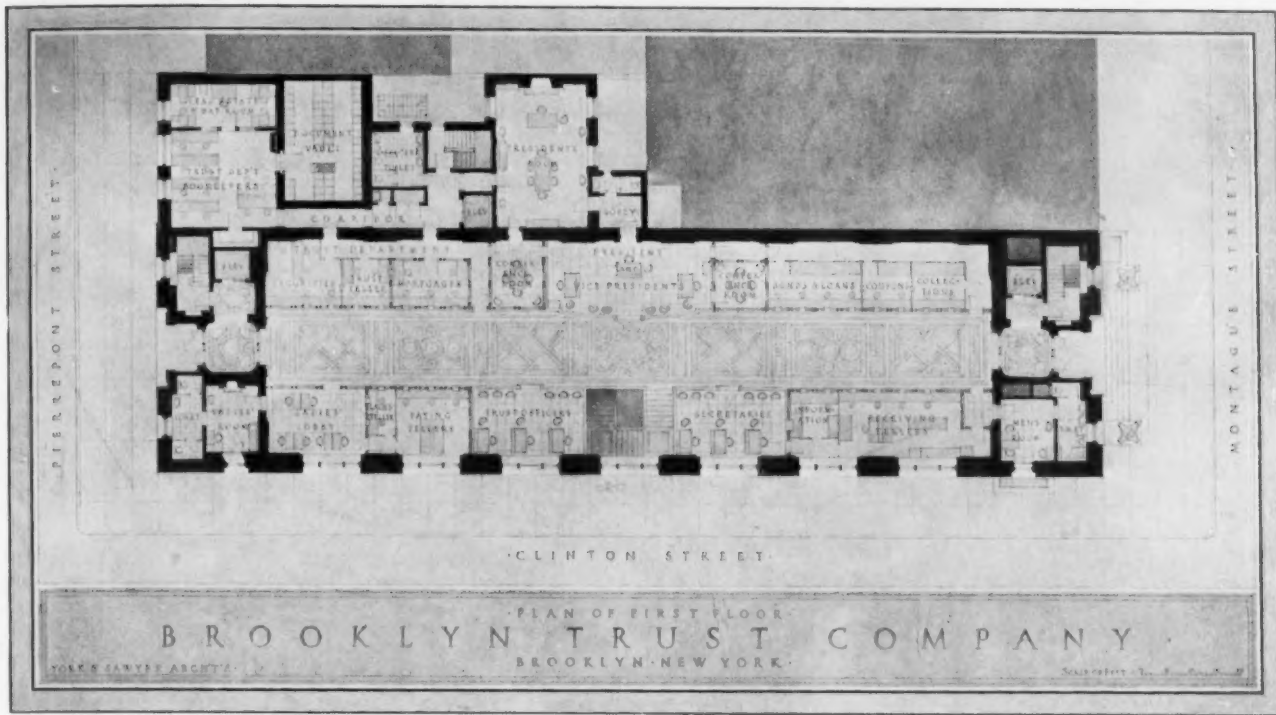


DETAIL OF ENTRANCE AND LOWER STONES, MONTAGUE STREET FACADE

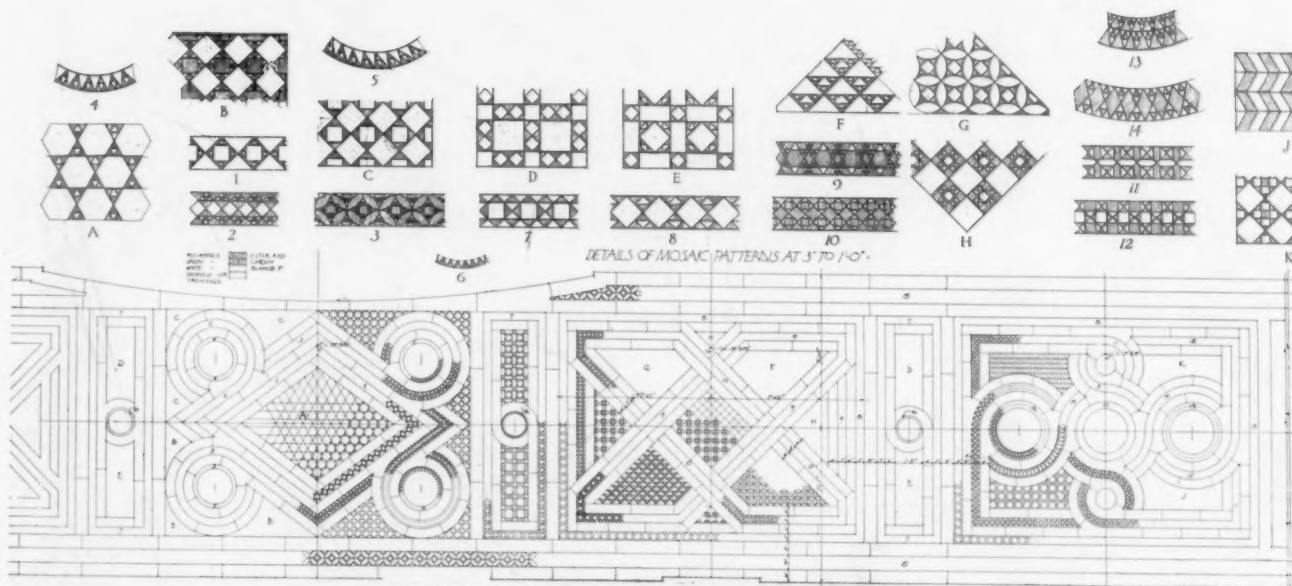
BROOKLYN TRUST COMPANY BUILDING, BROOKLYN, N. Y.

YORK & SAWYER, ARCHITECTS

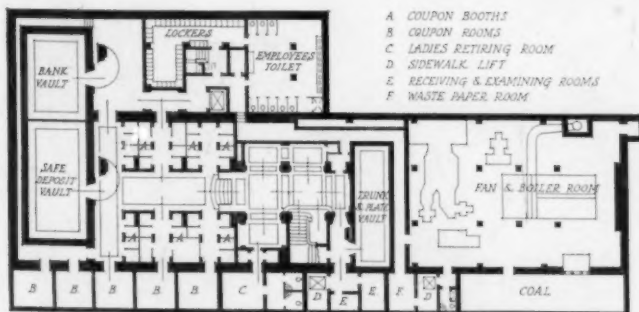
LIBRARY
OF THE
BIBLIOTHEQUE
NATIONALE
PARIS



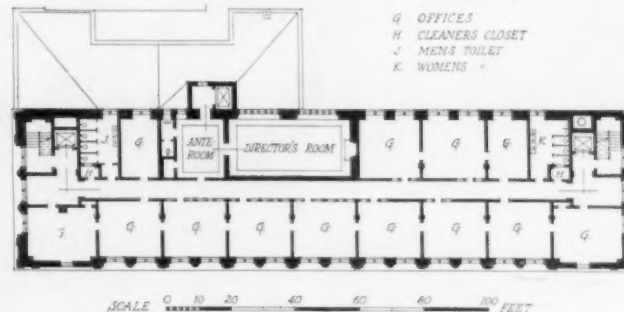
FIRST FLOOR PLAN



DETAILS OF BANKING ROOM FLOOR PAVEMENT



BASEMENT FLOOR PLAN



TYPICAL OFFICE FLOOR PLAN

BROOKLYN TRUST COMPANY BUILDING, BROOKLYN, N. Y.

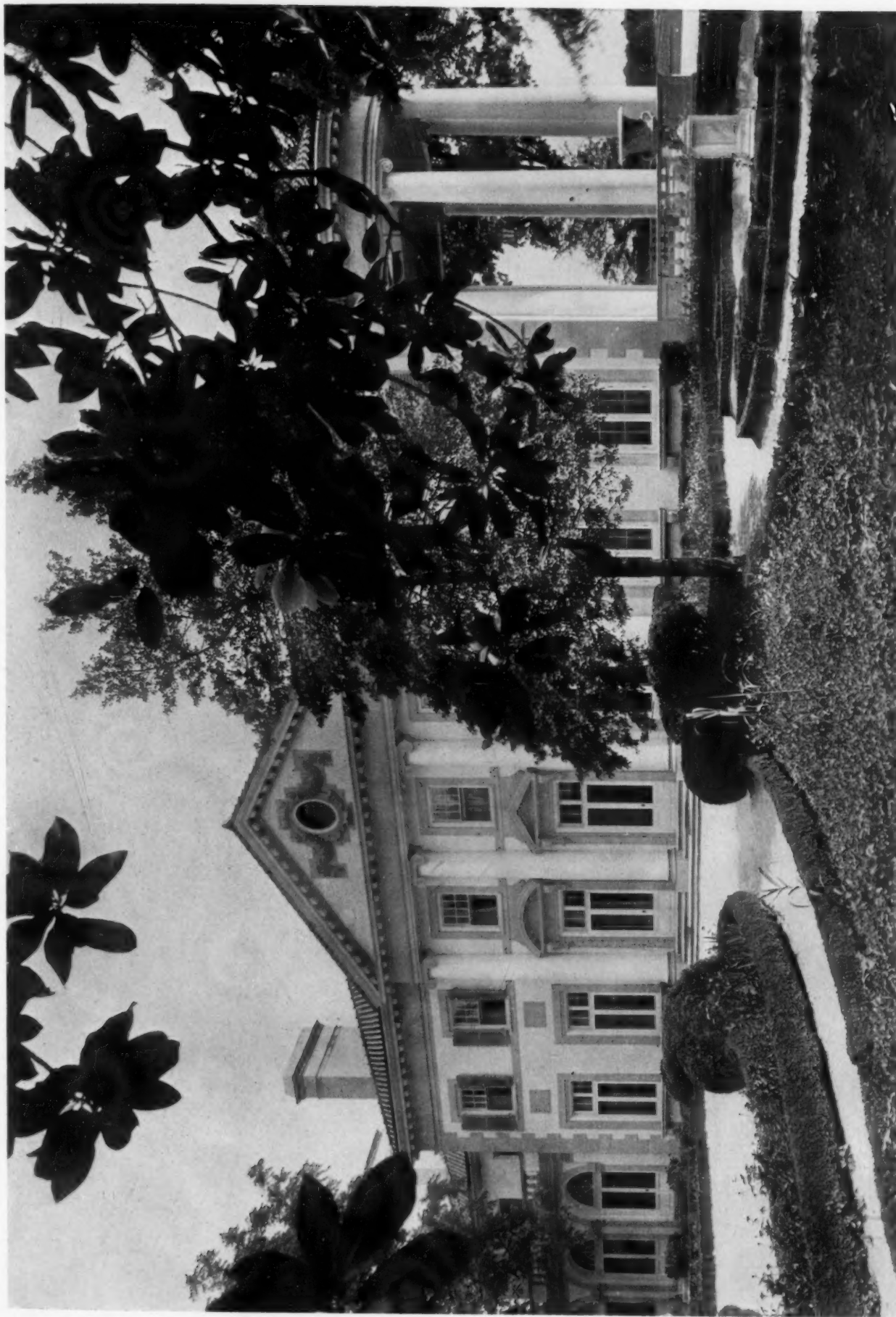
YORK & SAWYER, ARCHITECTS



INTERIOR OF BANKING ROOM
BROOKLYN TRUST COMPANY BUILDING, BROOKLYN, N. Y.
YORK & SAWYER, ARCHITECTS

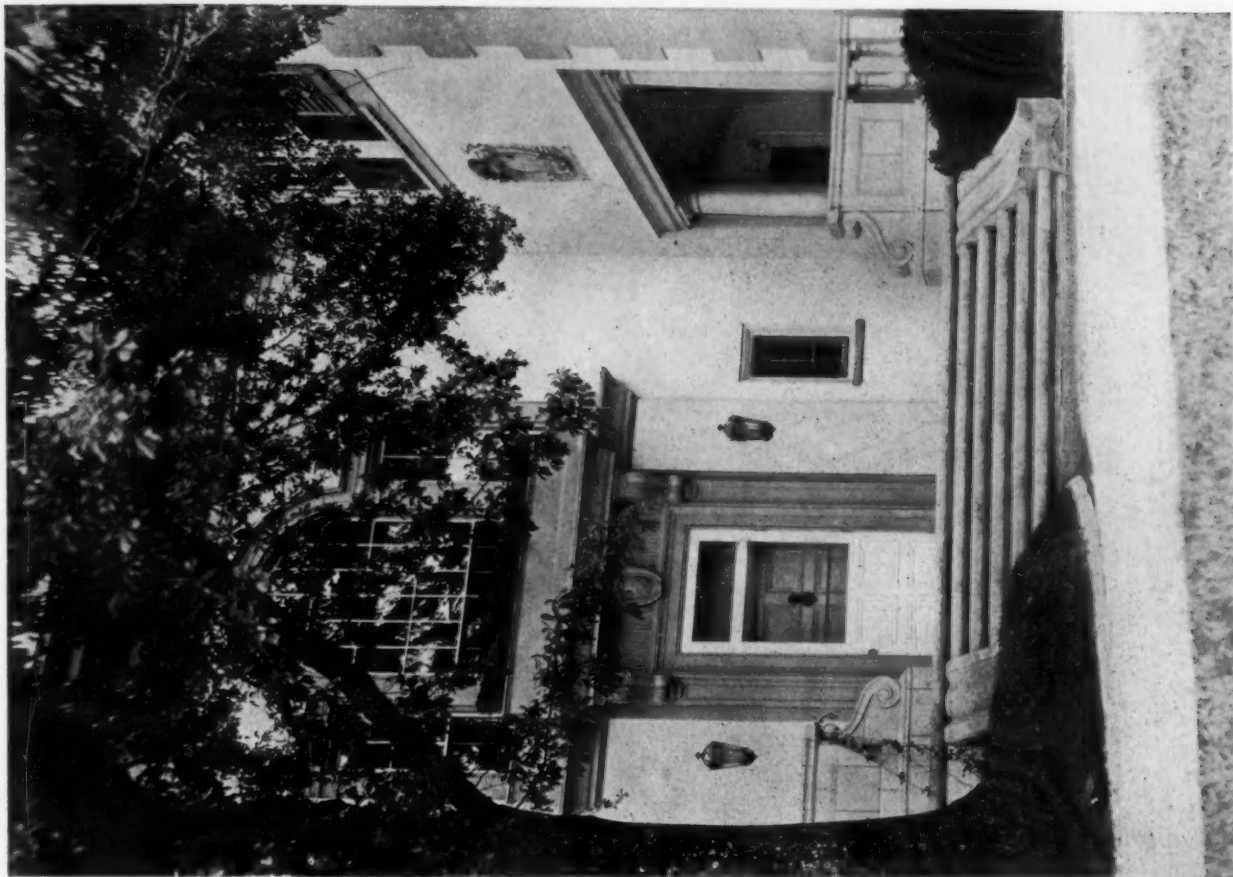
100

201



HOUSE OF FULLER E. CALLAWAY, ESQ., LA GRANGE, GA.
HENTZ, REID & ADLER, ARCHITECTS

1000
1000
1000
1000
1000



STAIR HALL ENTRANCE

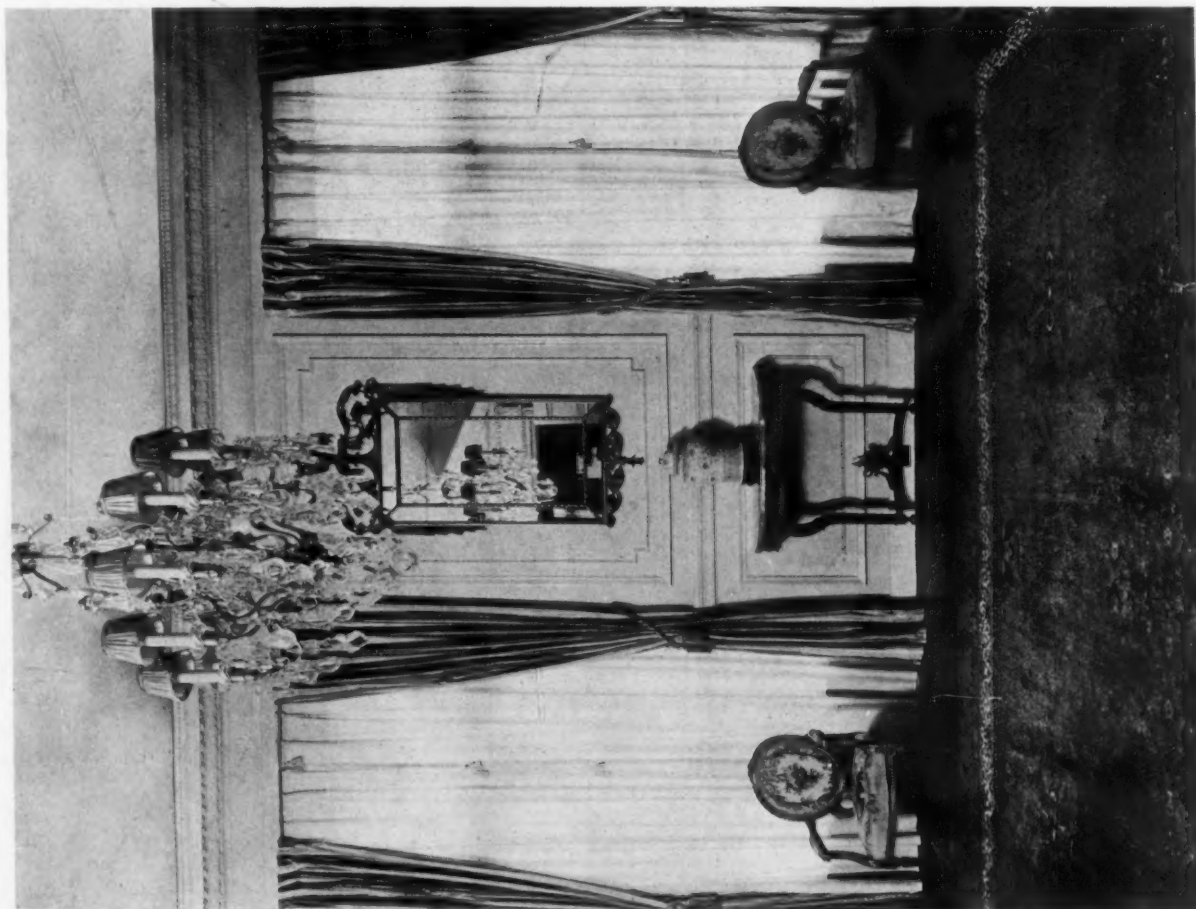
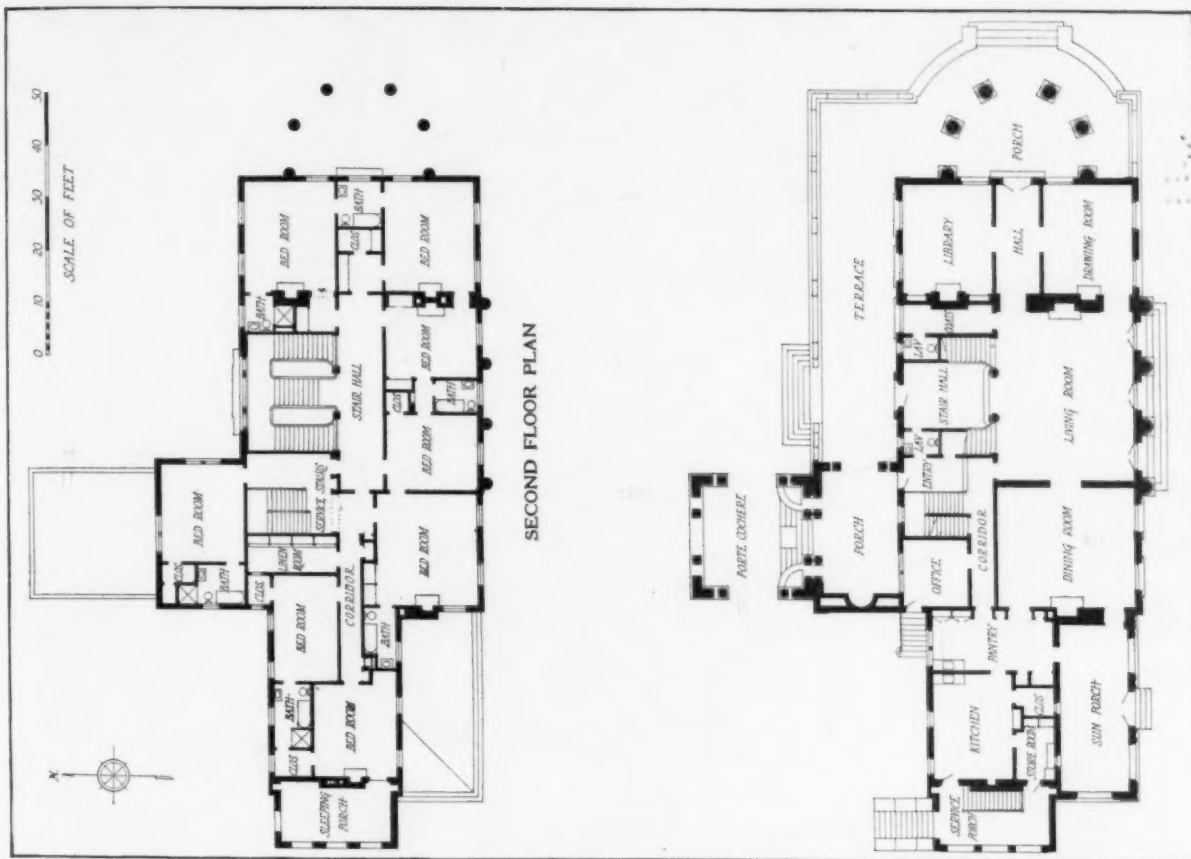
HOUSE OF FULLER E. CALLAWAY, ESQ., LA GRANGE, GA.

HENTZ, REID & ADLER, ARCHITECTS



VIEW ALONG TERRACE

1000
1000
1000
1000

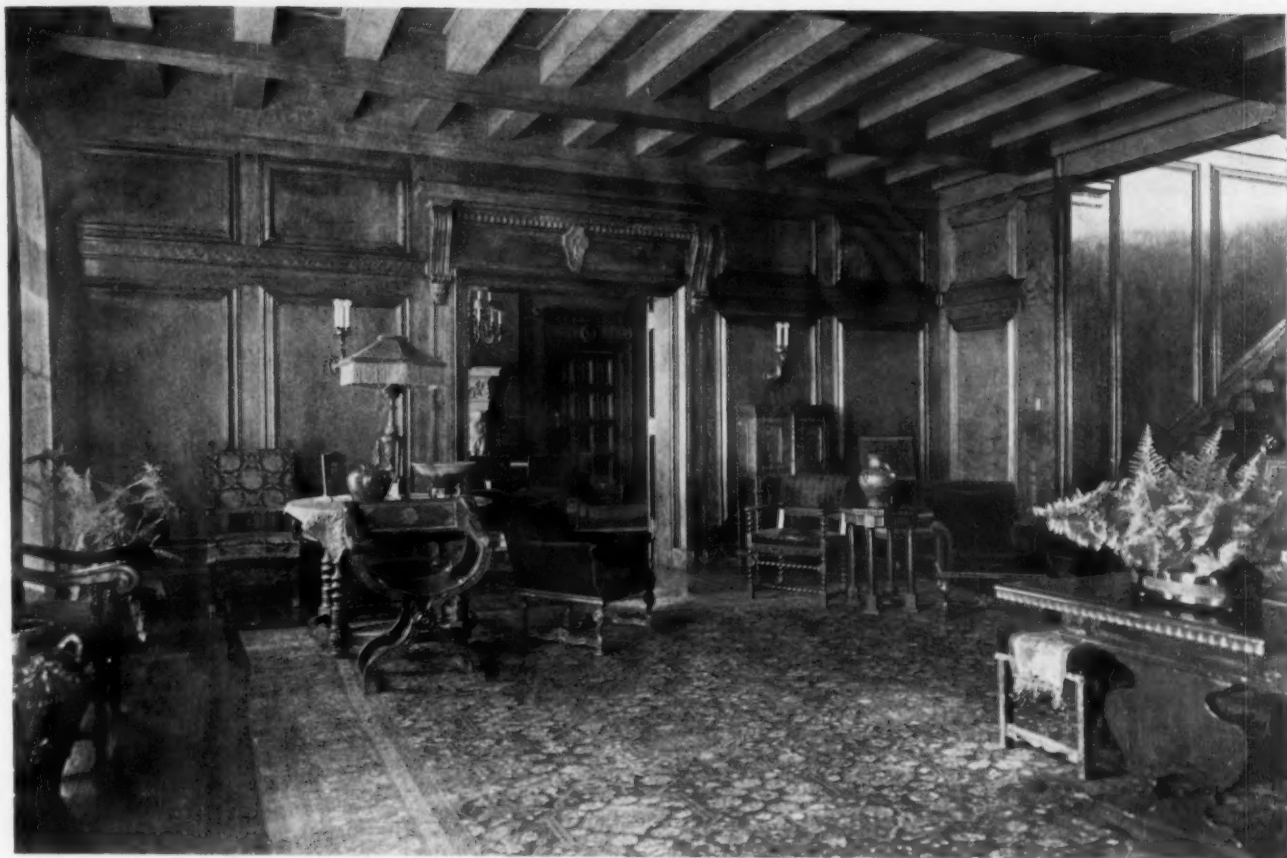


DETAIL OF DRAWING ROOM

HOUSE OF FULLER E. CALLAWAY, ESQ., LA GRANGE, GA.

HENTZ, REID & ADLER, ARCHITECTS

10000
10000
10000
10000



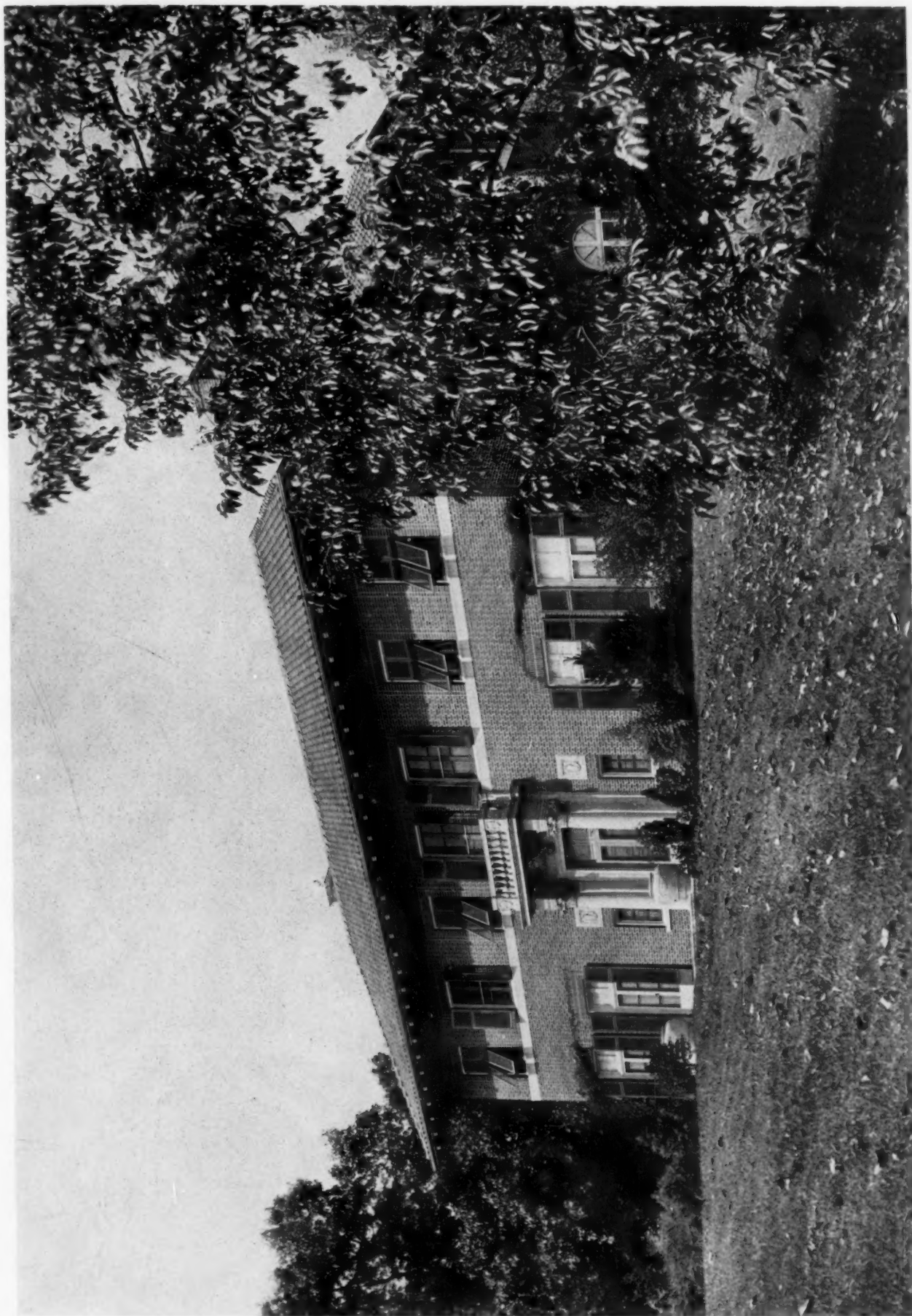
VIEW OF LIVING ROOM



VIEW OF DINING ROOM

HOUSE OF FULLER E. CALLAWAY, ESQ., LA GRANGE, GA.
HENTZ, REID & ADLER, ARCHITECTS

NU

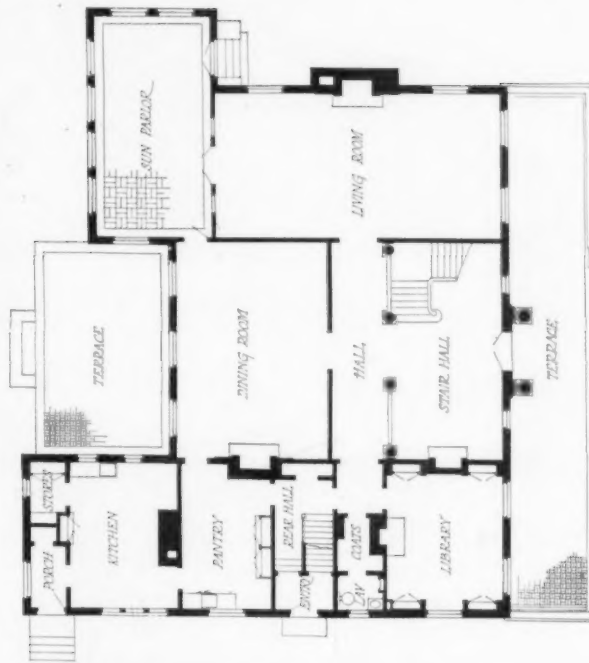


HOUSE OF BENJAMIN Z. PHILLIPS, ESQ., ATLANTA, GA.
HENTZ, REID & ADLER, ARCHITECTS

100000
100000
100000
100000
100000



SECOND FLOOR PLAN



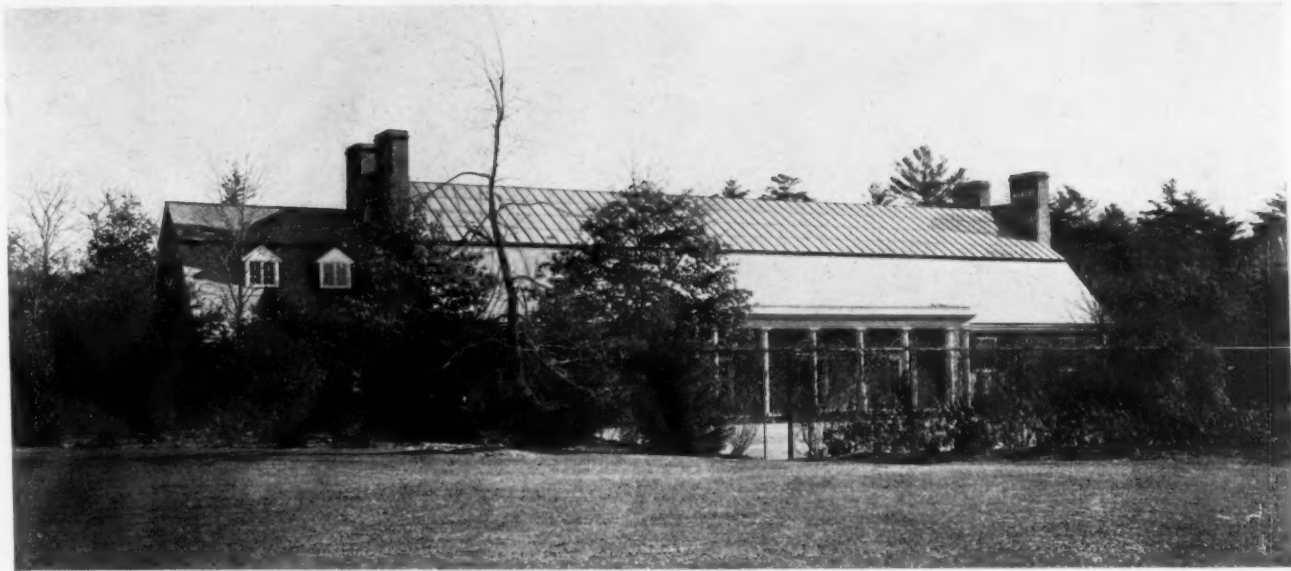
FIRST FLOOR PLAN



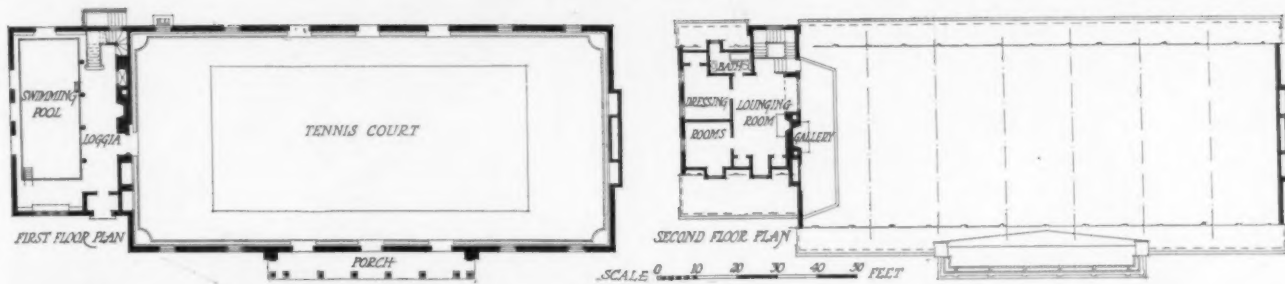
DETAIL OF ENTRANCE DOORWAY

HOUSE OF BENJAMIN Z. PHILLIPS, ESQ., ATLANTA, GA.
HENTZ, REID & ADLER, ARCHITECTS

中国地质大学
 地质研究所
 地质研究所
 地质研究所
 地质研究所



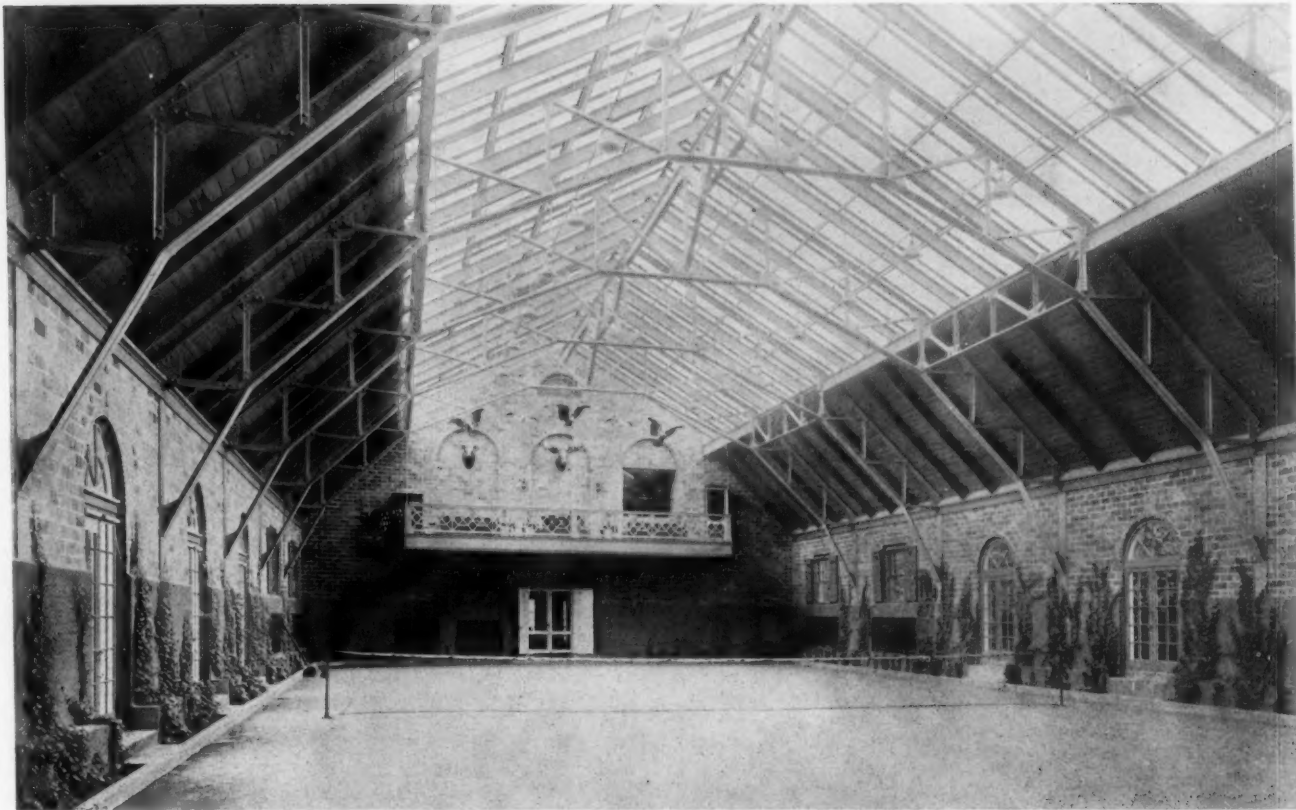
GENERAL VIEW OF EXTERIOR



DETAIL OF PORCH

TENNIS COURT BUILDING OF F. L. AMES, ESQ., NORTH EASTON, MASS.

CHARLES M. BAKER & STANLEY B. PARKER, ARCHITECTS



VIEW OF TENNIS COURT ENCLOSURE



VIEW OF SWIMMING POOL

TENNIS COURT BUILDING OF F. L. AMES, ESQ., NORTH EASTON, MASS.

CHARLES M. BAKER & STANLEY B. PARKER, ARCHITECTS

20

Recreation Buildings for Officers and Men at the National Army Cantonments

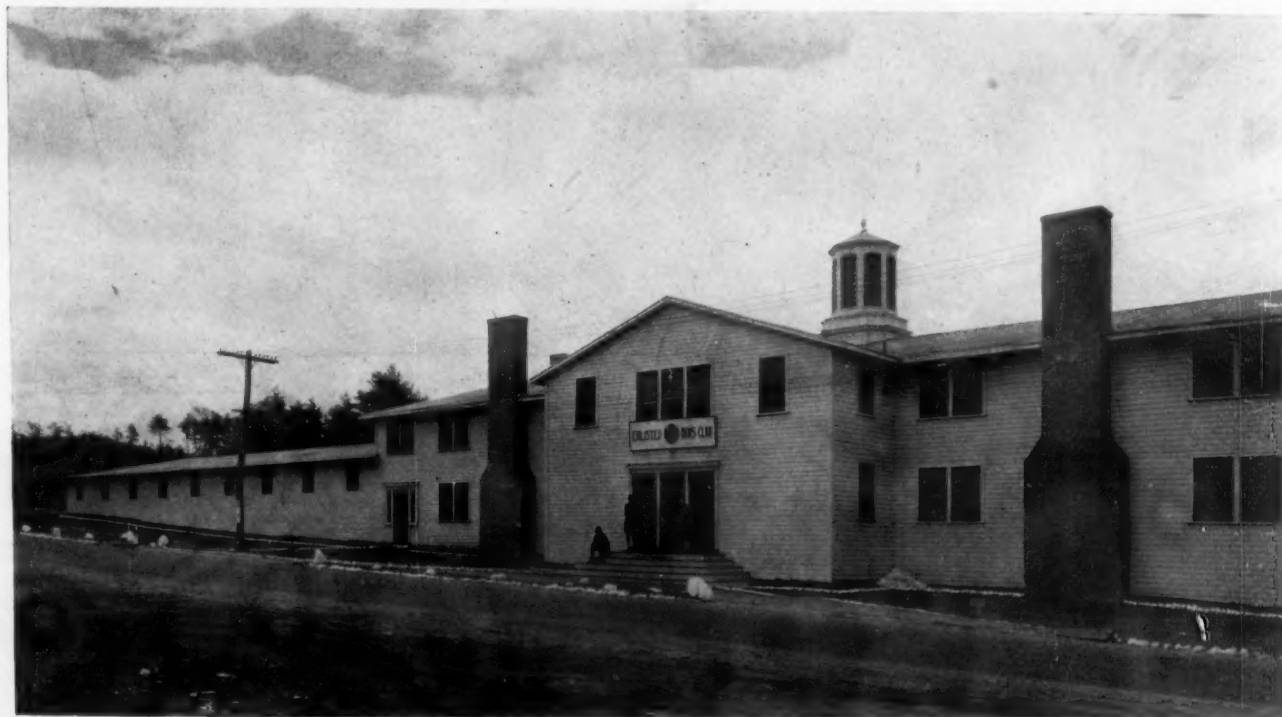
THE training of our military forces for service overseas illustrates many principles differing from custom in previous wars and shows the addition of features providing for comfort and recreation that were unknown in military camps of earlier days. The training of a civilian army is a huge undertaking when the men engaged exceed the million mark and the matter of keeping them contented and wholesomely occupied during leisure hours is quite as important a problem as teaching them the science of war. Previous to our entrance into the European War we had been afforded in our policing of the Mexican border an opportunity of seeing the effect of military life on men when no provisions for recreation were made. The results were not such as would produce the most efficient fighting force. The dreary stretches of brown sand scattered with adobe huts were in themselves most depressing; add to that the absence of all recreation centers save a few dirty Mexican saloons and it is not remarkable that the men soon became listless and uninterested.

The value of this experience was not lost, however, and the conditions of our great training camps today present a striking contrast to those on the Mexican border. At the beginning of the war a Commission on Training Camp Activities was appointed by the President with Raymond B. Fosdick at its head. Through this centralized bureau a great many differ-

ent organizations are working in harmonious relations for the benefit of the men in the army and navy.

The first organization to lend its effort to the work and which contributes service of the widest scope was the Y. M. C. A. Before the first of the draft army entered the cantonments the Y. M. C. A. had erected tents and was prepared to welcome the new men to camp and help them adjust themselves to their new environments. Very soon after, their buildings were erected and the service extended so that buildings are now provided in the larger camps at distances not greater than a mile apart. These are known as "Y" huts and are of two general types, one, the "E" type, having a large room used as an auditorium and a wing for an assembly room and canteen; the other, the "F" type, having only the large single room. Up to May first of this year 503 of these huts had been constructed in the various army and navy camps in this country at a total cost of \$3,231,071 and buildings authorized but not yet constructed comprise 69 at an estimated cost of \$304,664.

In the larger cantonments there are, in addition to the huts, buildings for the administration headquarters and a large central auditorium seating approximately 2800 men. This provides space for theatrical performances, lectures and other entertainments and on Sundays for large religious gatherings. The central area is free from supporting posts and is large



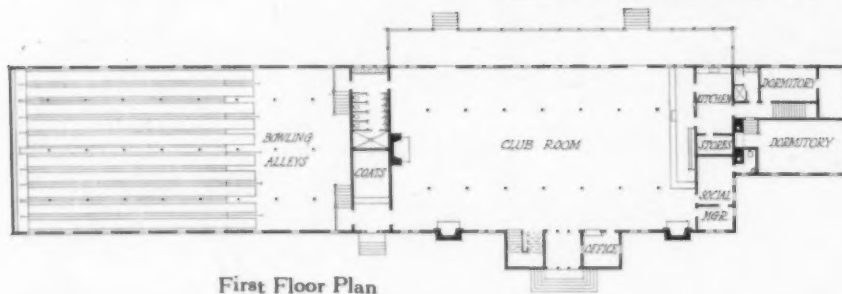
Entrance Front, Enlisted Men's Club, Camp Devens, Mass.
Parker, Thomas & Rice, Architects

enough to accommodate two basketball courts. All the buildings are of wooden construction similar to the army barracks but with an outer covering of siding and a row of dormer windows on both sides of the pitched roof which act as a clerestory in flooding the interior with daylight. The buildings have become standardized, and the plans, adopted after much study and experience, reproduced herewith show how well fitted they are to their purposes. The heating is effected by large stoves set on concrete

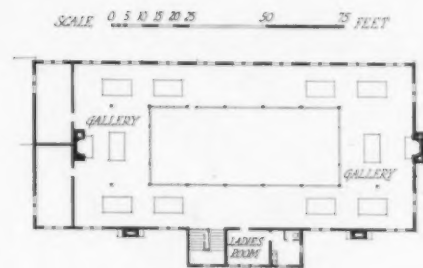


Interior of Enlisted Men's Club

foundations. The work of designing and constructing the buildings is carried on by the Construction Division of the Y.M.C.A. with which a number of architects have become affiliated. The management of the huts is under trained workers who have their sleeping quarters at one end. Each of the buildings has small private rooms for class work and ample facilities for writing letters, reading, etc. The service supplied by the Y.M.C.A. is fourfold and of such widely varying character as to meet the desires of every man in camp.



First Floor Plan



Second Floor Plan



View of Robbins Pond Front
Enlisted Men's Club, Camp Devens, Mass.
Parker, Thomas & Rice, Architects



Interior of Red Cross Recreation House

It provides educational work through French, English and other classes, social work by means of free motion picture shows and other entertainments, recreation by means of games carried on within the huts and athletic instruction in the auditorium.

One of the early features of the camps was provided by the Y. W. C. A. for the accommodation of women guests. These buildings are known as Hostess Houses and provide a much appreciated service. There is one in each camp located at an accessible spot near the entrance, furnishing a convenient meeting place for soldiers and their visiting friends. They are of a standard type with an H-shaped plan designed by F. B. & A. Ware, architects, and constructed in a substantial manner of wood framing with brown-stained shingle exterior walls and prepared roofing. A feature of the interior is the large central chimney of field stone or brick with two fireplaces, one on the lounging-room side and the other on the dining-room side. Glazed sun porches that extend across two sides of the exterior afford space for large or small gatherings. The houses are further equipped with rest rooms for visiting women, a children's room, a check room, and on the second floor, in addition to quarters for the hostess and her staff, rooms for women guests who wish to remain overnight

at the camp. The meals are served on the cafeteria principle and the system of passing up one side of a rail and down the other past the counter where the food is distributed enables large numbers of people to be served quickly and without any confusion.

Another organization which is furnishing distinctly valuable service in a separate field from that of the Y. M. C. A., K. of C. and Jewish Welfare Board, whose main activities are confined to recreation within the camps, is the War Camp Community Service. The work of this body is concerned with the recreation of the soldier and sailor outside of camp in the neighboring cities in which they may spend their time of

furlough. It is quite as important, if not more so, that provisions for recreation and safeguarding morals should be available in the cities as in the camps, and the early realization of this by a group of interested people was instrumental in the founding of the W. C. C. S. Under the direction of this body community entertaining is conducted, soldiers' clubs and hotels where sleeping accommodations may be had at moderate cost, and recreation and opportunity for reading and writing at no charge, are operated in the cities near the camps. Bureaus of information are also conducted which direct the men in service to proper amusement places, points of historical and literary



Red Cross Recreation House, Base Hospital, Camp Devens, Mass.
Marshall & Fox, Architects



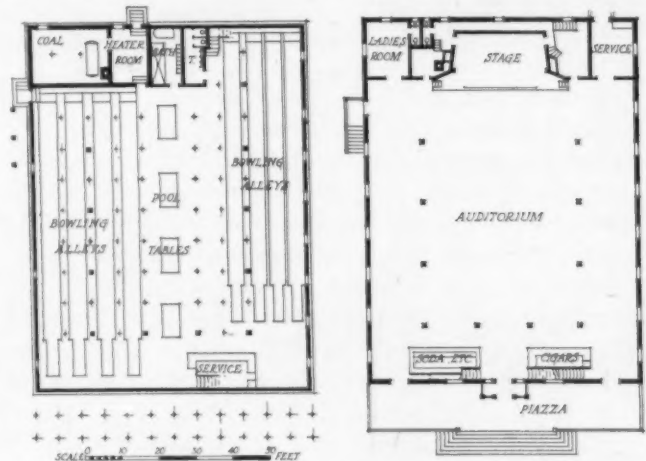
Y. M. C. A. Hut for the Navy, Philadelphia, Pa.

interest, and living accommodations for themselves and members of their families. This work has been carried on through voluntary contributions made in the last year totaling \$4,000,000.

Two of the clubhouses erected and maintained by the W. C. C. S. are illustrated herewith. One is located on West Street, in the town of Ayer, Mass., near which Camp Devens is situated. The other, called the Enlisted Men's Club, is on Robbins Pond in the precincts of Camp Devens. This is an exception to the rule that the W. C. C. S. activities are carried on without the borders of the camps and was occasioned through the fact that after construction, the area of the camp was extended and the site of the club brought under control of the Government. An interesting example of the thoroughness with which the Government enforces its regulations for sanitary arrangements in its camp buildings is shown by this coincidence. Some of the details of equip-

ment did not meet Government specifications and the changes in the building that were required in the matter of toilet accommodations and kitchen facilities, such as the covering of table tops with zinc, etc., required the expenditure of \$12,000. This building was designed by Parker, Thomas & Rice, architects, who contributed their services to the work above the actual cost of preparing plans.

It has a pleasing location on the shores of a small pond and has the character of a country club in its plan and exterior appearance. The exterior is of white painted siding, its architectural effect being gained by the grouping of windows and long, gently sloping roof surmounted by a colonial cupola. The interior is finished in wall board with an open timbered roof over the central part that comprises the lounging space. A wide



Basement and First Floor Plans of Soldiers' Club



W. C. C. S. Soldiers' Club, West Street, Ayer, Mass.
Loring & Leland, Architects

balcony supported by posts extends around all sides of this room and provides space for billiard tables. Opening from the balcony and over the main entrance is a ladies' retiring room. The woodwork of the interior is left in the natural state. The kitchen and facilities for cafeteria service are in one wing and the toilets and bowling alleys in the other. Three fireplaces of interesting brick design and bookcases along the walls form a focal interest at one end of the main room. The building cost about \$40,000. It is devoted exclusively to the service of privates, officers not being privileged to make use of it. It is operated by a committee of non-commissioned officers selected from the men in camp and is self-supporting. The monthly income from the cafeteria and recreation facilities is approximately \$10,000. Should any profits exist they are utilized in the enlargement of the club and extension of its service.

The club in the town of Ayer is operated on a similar basis and is similar in its appointments to the Enlisted Men's Club. The building was designed by Loring & Leland, architects, and cost about \$50,000. The building is provided with a stage at one end of the main room so that entertainments may be given. There is no cafeteria service conducted, but light refreshments may be had at a soda-water counter. The basement is given over to bowling alleys.

The recreation of the convalescents in the base hospitals presents still another problem and this is met by the Red Cross. In connection with each of the base hospitals there are being erected large recrea-



Y. M. C. A. Auditorium, Camp Devens, Mass.

tion houses provided with ample facilities for soldiers recovering from illness or wounds. The one illustrated herewith is at Camp Devens and is of an individual type differing from that which has now been adopted as standard. These buildings are characterized by ample porch space and well-lighted interiors. The porches are connected with the covered passages between the ward buildings so that convalescents may pass from their wards to the building with convenience at all times. The interior is chiefly occupied by one large hall resembling in its form the nave and aisles of a church. At the south side, lighted by a long group of windows is a raised platform serving as a stage and in the daytime a sun room. The clerestory walls above the covered verandas admit great quantities of daylight.

The interior treatment of the hall in the Camp Devens building is most effective and obtained with the simplest means. The roof is of open timbers



Y. W. C. A. Hostess House, Camp Devens, Mass.

F. B. & A. Ware, Architects



GENERAL VIEW OF EXTERIOR



LOUNGING ROOM

OFFICERS' CLUB, CAMP UPTON, LONG ISLAND, N. Y.



Officers' Hostess House, Camp Upton, Long Island, N. Y.

with trusses and supporting posts of rough lumber stained a deep brown. The walls are sheathed to a height of six feet with siding similarly stained, and above it they are covered with cream-colored wall board separated with brown panel strips. The flags of the Allies attached to the posts, the red curtains at the proscenium opening, and bright chintz window hangings contribute an agreeable atmosphere of color. This building as well as the standard type which has a cross-shaped plan, but otherwise quite similar, was designed by Marshall & Fox, architects, and erected by the Red Cross Bureau of Construction, of which Mr. Charles E. Fox of that firm is Associate Director. Over fifty-five recreation buildings of this character have been built by the Red Cross in connection with the hospitals in this country.

From the foregoing the number of the agencies at work for the benefit of the men in the army and navy and the great service they are rendering may be appreciated. In providing these many sources of recreation for the men, provisions for the officers have not been overlooked. In every camp in the country attractive places for relaxation and recreation are in use by the officers, that have been provided through their own initiative or through private groups of people interested in their welfare. In some camps the officers have taken over one of the barracks, where by remodeling and the addition of interior conven-



Interior of Officers' Hostess House, Camp Upton



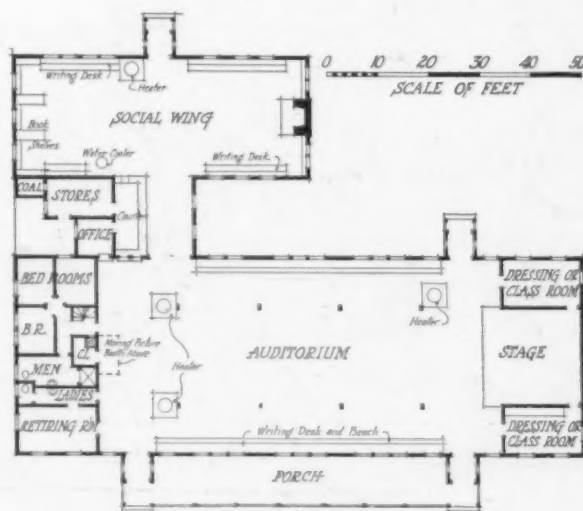
Interior of Officers' Club, Camp Upton

iences and attractive furnishings they have established clubs. In other camps, as at Camp Upton, a special building has been erected. The one at Upton is particularly interesting in showing what attractive results may be had by good architectural treatment of the simplest type of inexpensive wooden construction. The white painted, clapboarded exterior with inviting porches presents a spot of relief in the great sea of unpainted barracks and military structures that can only fully be appreciated by the men living there. The interiors show open timbered ceilings formed by the floor construction, and walls of wide battened boards, stained in soft colors. Large stone fireplaces and comfortable furniture add the touch of comfort and refinement that is needed in the hours of relaxation from military duty.

The benefit to the morale of the men through the contact with such elements that preserve the associations of civil life has been proved without question and in this work architects have played a large part. Many have freely given of their best effort to the design-

ing of these buildings with no financial compensation. In doing so they have contributed a valuable service which, consciously or unconsciously, is felt by the thousands of men training in the camps, to the great benefit of their mental and physical stamina. Appreciation of simple art and ingenuity of design have enabled these architects to model out of inexpensive and homely materials restful centers of recreation. The welcome with which their efforts are received and the satisfying manner in which they fulfil a great need prove once again how fundamentally important is the art of architecture in our daily life and how necessary its expression to civilized and educated people.

The work of the war relief organizations is not confined to this country alone; it precedes our men to Europe and there under more trying circumstances the same cheerful spirit of helpfulness is dispensed, not always in equally well appointed buildings, as the fighting front is approached, but in Paris, London, Manchester and other cities of our Allies well equipped clubs for Americans are now in operation.



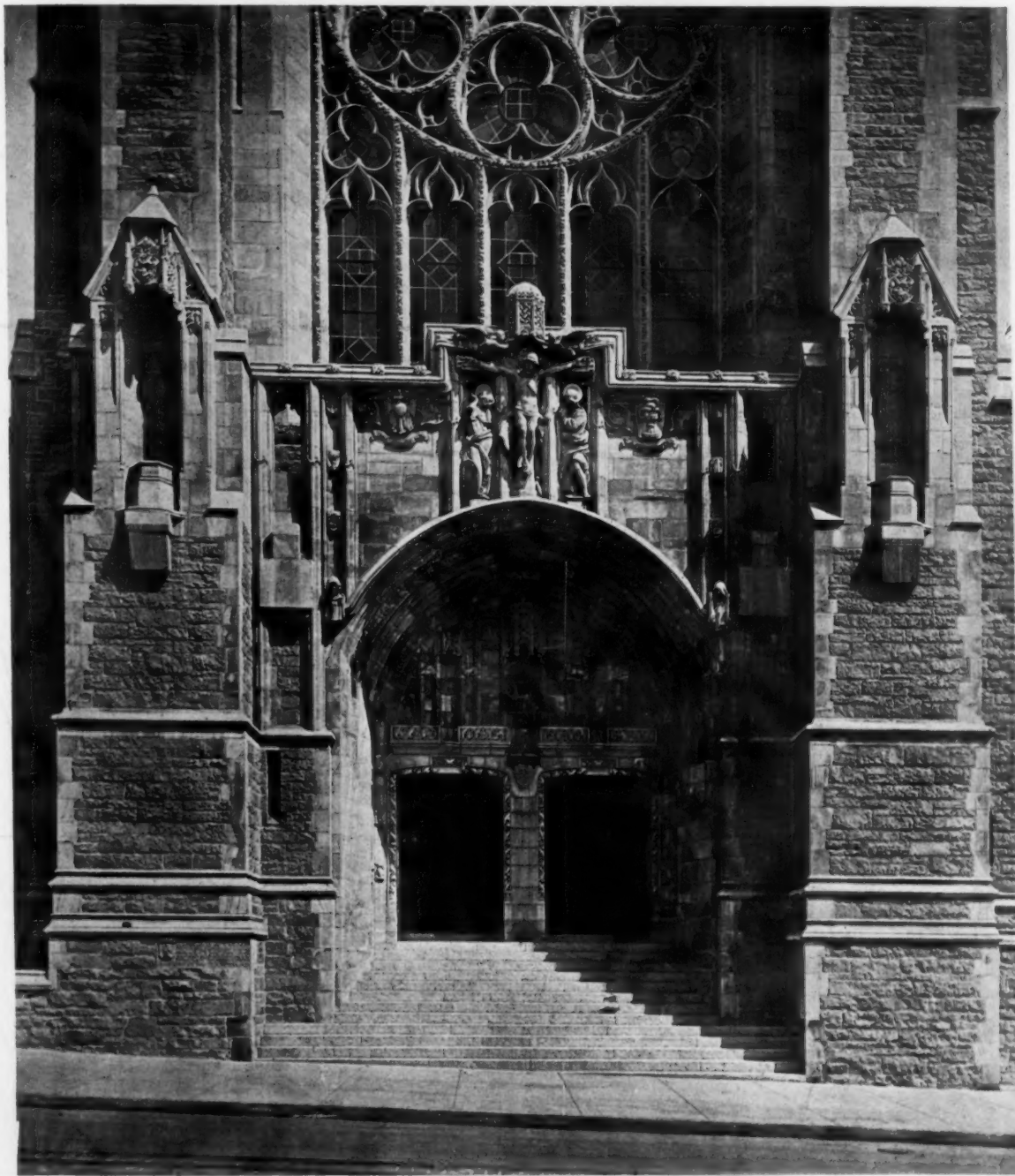
Floor Plan of the Typical Y. M. C. A.
Cantonment Hut, Type "E"



Y. M. C. A. Eagle Hut, Bryant Park, New York City
This is similar to the Typical "F" Hut of the Cantonments

THE FORUM COLLECTION OF
MODERN GOTHIC ARCHITECTURAL DETAILS

PLATE SEVEN



AN excellent example of the Gothic style handled in a broad manner on a church façade of large scale. The delicacy of the pierced carving is well related to the mass by

the strong mouldings which define the ornamented areas. The interdependence of sculpture and architecture has been consistently recognized. The models are the work of Lee Lawrie.

DETAIL OF DOORWAY, CHURCH OF ST. VINCENT FERRER, NEW YORK

BERTRAM GROSVENOR GOODHUE, ARCHITECT

DETAIL DRAWING BY J. P. WILSON AND E. T. JAGO ON FOLLOWING PAGE

Church of St Vincent Ferrer:
 Lexington Avenue, New York:
 Detail of Arch of Main Doorway.
 Bertram Grosvenor Goodhue, Archt.

0 1 2 3 4 5 6 7 8 9 10
 Scale of Feet

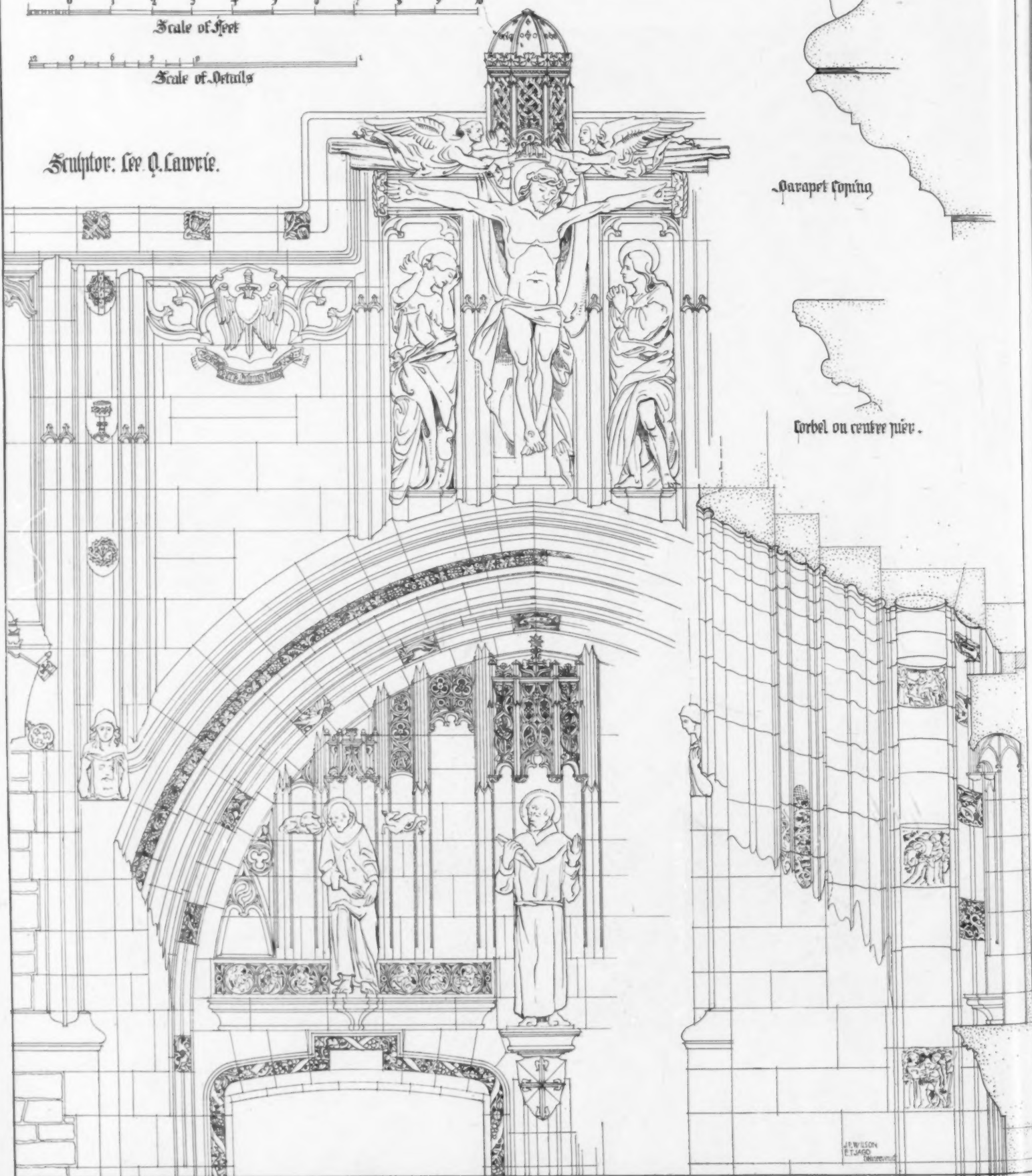
0 1 2 3 4 5 6 7 8 9 10
 Scale of Details

Sculptor: Lee Q. Lawrie.

Line of boss.

Barapet Coping

Corbel ou centre pier.



J. WILSON
 F. J. JACO
 DRAUGHTSMEN

Brick Used as a Means of Interior Decoration

THE CITY HOUSE OF EDWARD H. NOYES, ESQ., BOSTON, MASS.

H. B. RUSSELL, ARCHITECT

FOR a number of years past there has been a growing appreciation among architects of the inherent beauty possessed by many building materials of the most common origin. With the greater attention that is now given to proportion, texture of wall surfaces, color harmony, and the lesser dependence upon applied decoration for architectural conceptions, the selection of constructive materials, with reference to their physical appearance has become a matter of prime importance in the execution of architectural design.

Brick has probably to a greater extent than any other material been used in work where particular emphasis has been placed upon the color and texture of wall surfaces. The use of this material has generally been confined to exterior walls with the exception of some instances of its use in cafés, and sun rooms of residences. It is therefore a distinctly novel means of interior decoration to employ common brick for the walls of the principal rooms of a private residence. The illustrations shown herewith convey an impression of comfortable living quarters of strong architectural character, the predominating note of which is their brick walls! At first thought, such a method of treatment suggests cold, uncouth and barren rooms in which there could be no interest, yet the exact opposite is the case. The rooms pictured present a warmth of tone and interest to the eye that would be difficult to duplicate in another material, particularly so as the effect is due to the texture and color of the walls alone, for aside from the furnishings and the simplest architectural features such as mantels, there are no other means of decoration employed.

The fact that the house is the result of an alteration to an old building was the means of suggesting this experiment which has culminated so successfully. The building is located

in a part of Boston which has been reclaimed in recent years from a period of neglect into which it had fallen, and now exhibits a gradually attained architectural character equal to that of the days in which it formerly enjoyed its great popularity as a residential section. Many of the buildings in the locality date back a hundred years and more and nearly all are of brick, having the characteristic marks of craftsmanship that were so universal among our early building materials. The side walls of the house are the original party walls of the older building; their warmth and color, little irregularities of coursing and interesting texture suggested their being retained without any external finish, and duplicating them as far as possible in the new construction that was necessary. This has been admirably carried out and the resulting work is of exceptional charm, something the camera, unfortunately, is not able to portray fully because of its inability to reproduce color tones, and as it is the color of the walls that is the outstanding feature of these rooms, it must be left to the reader's imagination, aided by the illustrations which indicate the conditions of light and the general physical aspect, to form his own mental picture.

Much of the effectiveness of the house is derived from its lighting, which may be explained by a brief description of the plan. The building is located within a block, the front wall on the street line, the principal rooms occupying the whole frontage and extending three deep on each of the two floors. On the first floor at the front is the large living hall, which also serves as the entrance, in the center of the house is the court and to the rear, opening from a little lobby, are the kitchen and service facilities together with accommodations for a manservant. The central space, suggestive of those smaller courts to be found in Italy, forms the center around



Detail at Front of Living Hall



VIEW OF LIVING HALL



DETAIL OF LIVING HALL
 HOUSE OF EDWARD H. NOYES, ESQ., BOSTON, MASS.
 H. B. RUSSELL, ARCHITECT



VIEW OF INTERIOR COURT
HOUSE OF EDWARD H. NOYES, ESQ., BOSTON, MASS.
H. B. RUSSELL, ARCHITECT

which the other quarters of the house are grouped. It extends to the roof and is lighted from the sky, the sunlight from the large glass ceiling being filtered through cream-colored cloth, affording a wealth of mellow light that permeates the whole house. The side of the court opening to the living hall is formed of glazed doors which may be thrown open making practically the entire first floor one large apartment for entertainment or other purposes. Access to the second floor is by an open staircase of masonry construction on one side of the court and on the opposite side at the second floor level is an open gallery leading to the bedrooms at the rear of the house. The portion of the court above the glazed doors is open to the music room at the front of the second floor and divided with old Italian columns resting on a parapet. From whatever room one may look into the court, a charming picture is presented, and the effect at night, due to electric bulbs placed about the skylight and above the cloth screen, is equally engaging as that in sunlight.

As stated before, the distinguishing feature of the house is the warm tone of the brick walls. It approaches a soft rose color and was obtained by the simple process of sand blasting the old brick. This exposed a clean surface and removed sufficient of the mortar in the joints to set off the individual bricks as units, thereby casting small shadows that contribute a richly textured surface. The floors of the first story are likewise of common brick, laid in basket pattern with the flat side exposed. This is the surface which in manufacturing is not moulded smoothly and the consequent irregularities of firing make a floor of interesting character. The side of the court seen from the living hall, and the stairway, are coated with stucco of a grayish pink color to afford variety, but no strong contrast is apparent for the stucco repeats the lightest tones of the brick. The doorway and arched opening above are carried out in a smoothly surfaced cement with only enough reveal to enable them to stand out from the rougher surfaces of the stucco wall. A graceful treatment in the nature of an architrave is formed about the opening over the doorway by the simple modeling of two concentric surfaces of slight reveal in a pleasing outline. The architectural qualities of the court are enhanced through the use of growing vines and plants placed at advantageous points.

The music room also has walls of brick and is, like the court, lighted from a central ceiling light screened by cream-colored cloth, in addition to two windows reaching to the floor and leading to small exterior iron balconies. The floor of this room is of wide oak boards, and the ceiling, as are the others throughout the house, of rough gray plaster. This room is admirably furnished with old Italian furniture having damask upholsteries of a light dull-green color. The walls are hung with paintings and the background afforded by the rose-colored brick walls presents a surprisingly harmonious foil for their proper setting. The chimney-pieces in both this room and the living hall below are of new construction but of an old brick which after much searching was found in a house of the same period that was being demolished. The slight traces of mortar which were allowed to remain on the old bricks give a sufficiently lighter tone to place the needed emphasis on the chimney pieces, insuring their being the centers of interest in their respective rooms.

The physical appearance of these rooms is decidedly attractive but the interest they arouse is not because they exhibit an unusual means of decoration. Their source of attraction is the soft, restful texture and color of the walls.

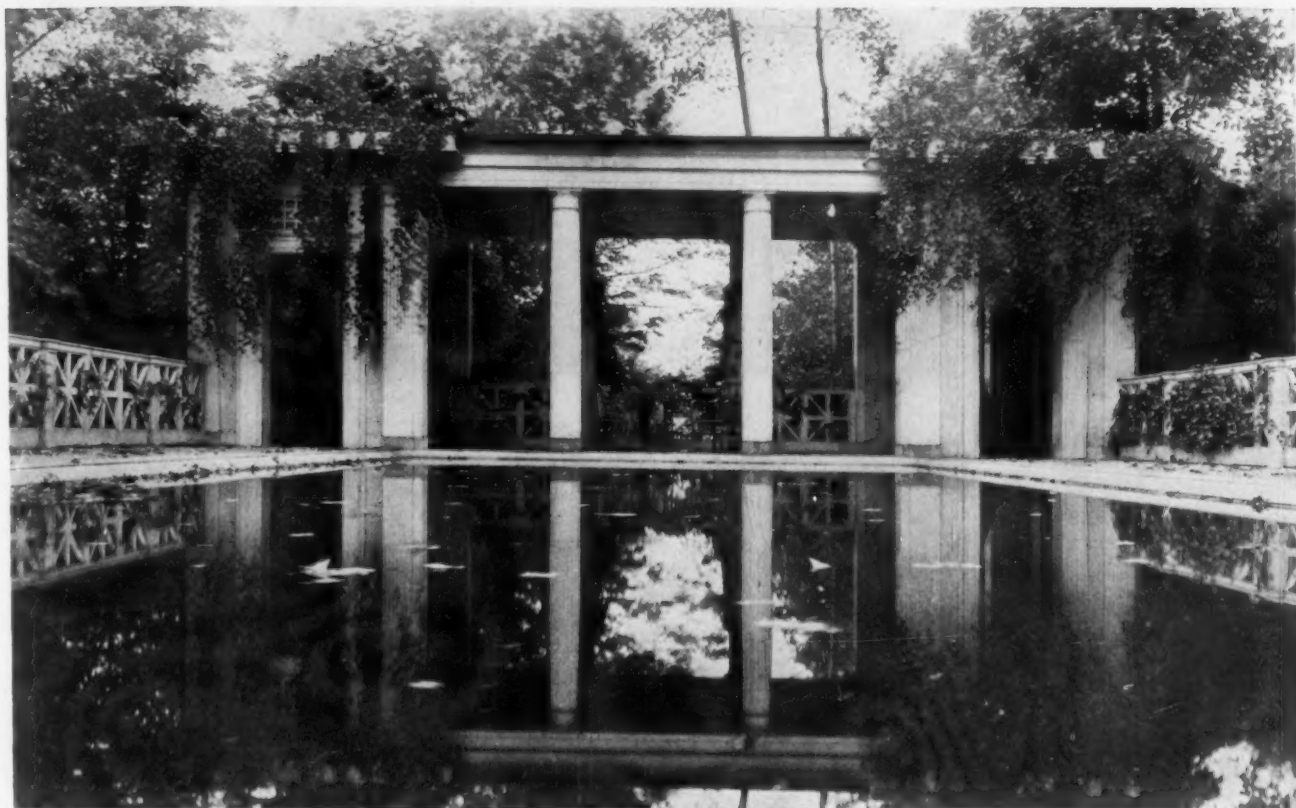


Detail of Mantel in Music Room

✓
• Swimming Pool and Bathhouse at Manhasset, Long Island

ESTATE OF RALPH PULITZER, ESQ.

CHARLES A. PLATT, ARCHITECT



EDITORIAL COMMENT AND BOOK NOTES

IN spite of the great losses and suffering occasioned by the war, the struggle is not without its compensations. The losses already experienced in life and material things are overwhelmingly large and there is no one but believes other losses must be sustained before final victory is wrested from the foe. There is, nevertheless, something gained — a compensation that can only be fully appreciated in the years that lie ahead. To any one reflecting upon the present developments there is a great measure of satisfaction in the good that is emanating from the very sacrifice itself; the mingling of the varied nationalities that comprise the battle lines of the Allies is welding into one ideal the thoughts on liberty and freedom for individual development that are the commonly possessed principles of the decent-minded and clean-thinking peoples of the earth. The allied nations are given an opportunity of seeing each other at close range, and, united as they are in a common purpose, they are enabled to appreciate their fundamental likenesses, and to understand and properly value those slight differences of nationality and custom which formerly were considered so vital.

With over a million American men in France and over one hundred thousand others studying French in the cantonments of this country under the direction of the Y. M. C. A., there is sure to be an interest in France and its people awakened that will far surpass the immediate need for war purposes. The presence of Americans in France is enabling many of our fellow citizens to perceive the orderly development of French life and the underlying artistic heritage of the French people. The soldiers' lot is cast in the very French towns and cities that are filled to overflowing with examples of the artistic life of the people, and the great pain with which they view their priceless marks of civilization being destroyed by the ravaging Huns is a daily sight of our fighting men. Can this fail to impress them with the love for beauty which is so characteristic of the French?

Similarly in the visits to the cities they must be cognizant of the orderly discipline of the architectural development of the street façades. The grandeur of the boulevards and the great open squares of Paris as well as the presence of art museums and municipal theatres in every provincial city must awaken in them an appreciation of civic beauty that will have an important bearing on the future development of American cities when these men have returned to take up their normal civilian activities. The educational influence afforded by the presence of our men in France is of great importance. It will be an influence that will tend to a greater appreciation of architecture and art in our own country and will be one of the greatest benefits we shall derive from the war.

PRACTICAL STRUCTURAL DESIGN. By Ernest McCullough, C. E. 303 pp. 6 x 9 in. Illus. New York: U. P. C. Book Company, Inc. Price \$2.50. There are many draftsmen who are handicapped in their efforts to succeed by a woeful lack of the principles of structural design. Much of this may be attributed to wrong methods of education in that more attention in the schools is given to the mere technique of drafting and less to actual construction — the end to which drafting only serves a means. To this class of student this book is particularly directed and the author, through a wide experience in practical work as well as teaching, brings to his task special qualifications for a successful treatment of an intricate subject. The foundation for the study of structures is laid in the opening chapters on external and internal forces followed by concise and detailed explanations, accompanied by numerous diagrams, of problems in the design of beams, girders, joints and connections, in preparation for the important chapters on graphic statics and columns and structures.

A HISTORY OF ARCHITECTURE. By Fiske Kimball and S. H. Edgell. 8vo. 603 pp. Illus. New York: Harper and Brothers. Price \$3.50 net. The authors of this book, assistant professor of architecture at University of Michigan and assistant professor of fine arts at Harvard University, respectively, have prepared a volume on architectural history of an exceedingly readable quality and yet not devoid of the analytical study of the development of style based on the latest results of archaeological research necessary to hold the attention of those readers trained in architecture. The book contains over 300 illustrations and the closing chapters on modern and American architecture are so interestingly written that they might have been extended in scope with additional benefit to the work.

OVER THE DRAWING BOARD. A Draftsman's Handbook. By Ben J. Lubschez, F. A. I. A. 131 pp. 7½ x 5 in. Illus. Washington: The Journal of the A. I. A. Price \$2.00. The tricks and short cuts in architectural drafting that are acquired through years of experience and acquaintance with different offices form the interesting material of this book. The data have been compiled with the intention of being helpful to the younger men as well as the more advanced student and while many of the suggestions may be known to the informed reader, the detail with which the author has discussed his subject is one of the book's strong virtues, for it is a frequent failing of authors of technical subjects to assume their readers possessed of a greater familiarity with fundamentals than the fact of the matter would warrant.